FOGHORN

THE MONTHLY CP/M PUBLICATION OF **FOG**

Vol. V No. 6 Circulation 16,500 March, 1986

INDEX

FROM THE FOG

3 ***It's Your Choice! — Twice*** .... *by Frank Morton*
Frank explains how the subscriber rebate can work now that FOG has two publications.

4 ***Let's See, Put the Reviews There, Library News Over Here...*** .... *by David M. Oates*
The editor reviews the changes and the new sections of the *FOGHORN*.

4 ***Writer's Guidelines*** .... *by Joanne Bransdon*
Some writing guidelines for authors submitting material for the *FOGHORN*.

5 ***Tell Us About Your CP/M Expertise*** .... *by Joanne Bransdon*
FOG is compiling a list of providers to the CP/M market.

5 ***POLITICS...*** .... *by David Oates*
Publishing political material is not FOG policy. David explains how one such ad slipped through.

NOVICE NOTES

20 ***Using PIP to Print*** .... *by David Haldeman*
Let the computer print out several files at once rather than sitting and waiting for one to finish before entering the next.

20 ***What is a Patch?*** .... *by Bob Thompson*
All about patches and bugs.

21 ***Hardware, Software, Languages*** .... *by Paul O'Nolan*
An introduction to what makes a computer "tick".

22 ***The Value of User Groups: An MBASIC Problem Easily Solved*** .... *by Harry M. Hawkins*
The value of user groups (all types) was brought home to Harry when a member helped him solve a pressing MBASIC problem.

ARTICLES

24 ***Track Your Stock with MBASIC*** ... *by Harry B. Pitcher*
A simple MBASIC program to track relative stock performance vs. buy price.

24 ***Setting Up Your Printer from the Keyboard*** .... *by Bob Thomson*
Toggling your printer from the CP/M prompt allows you to do this.

TELECOMMUNICATIONS

25 ***The Break Signal*** .... *by Jim Enright*
If you have wondered how the Break Signal differed from other data on your computer's RS-232 or modem output, read on.

BOOK REVIEWS

27 ***The Programmer's Toolbox*** .... *by James Alvey*
This book presents a series of programs to create a preprocessor for BASIC programs.

HARDWARE REVIEWS

28 ***The Juki 2200 Daisy Wheel Typewriter*** .... *by Richard A. Cohen*
Richard found the Juki 2200 a dynamite product that was hard to beat for price and quality.

28 ***The Toshiba 1340 Dot Matrix Printer*** . *by Bill Rothstein*
A BIG print job on a slow printer prompted Bill to buy the Toshiba 1340.

29 ***The Kaypro 2000 — A Great Little Computer, But No Company Support*** .... *by Bernard Jensen*
Bernard found that the Kaypro 2000 was a great little computer but was very disappointed with the company's support of its new offering.

SOFTWARE REVIEWS

31 ***SUPERDEX*** .... *by Fred Vanderschmidt*
A useful set of programs to simplify and speed up creating indexes, but there are a few bugs.

GOING INSIDE

34 ***DU by Example*** .... *by Don Riggs*
A DU lesson. Learning by example.

35 ***Speed Up dBASE II Ver. 2.43 for the Osborne 1*** .... *by Jerry Boyce*
Patches to eliminate introductory messages on the dBASE II version 2.43 on the Osborne 1.

WRITING TOOLS

43 ***SmartKey-Assisted WordStar*** .... *by Arto Kytohonka*
Some SmartKey functions to get you racing through your WordStar files.

45 ***Find and Replace Multiple Print Control Commands in WordStar*** .... *by Jean-Christian Auclair*
The differences between two printers led to this WordStar tip.

45 ***Columns by WordStar*** .... *by Dick Ezzard*
Formatting text in columns is a problem with several solutions. Here are some.

RUN THE NUMBERS

53 ***SuperCalc Reading*** .... *by Jim Holmes*
Some recommended reading if you're "into" SuperCalc.

54 ***SuperCalc Printing Tips*** .... *by Stephen G. Hill*
Create a CAL file with an ASCII character set that will send printer control codes from within spreadsheets.

MANAGING DATA

56 ***Benchmarking dBASE II Ver. 2.43 Vs. Ver. 2.41*** .... *by Jerry Boyce*
A dispute on speed led Jerry to test these two dBASE II versions.

57 ***Indexing in dBASE II*** .... *by John Gaudio*
Using the powerful and often little understood dBASE tool of indexing.

⇨

FOG has been formed as a users' group for all persons who use or are interested in portable computers. Membership is available to any interested party whether or not they currently own a computer. The ***FOGHORN*** is published monthly by **FOG** for its members. A subscription providing bulk mail delivery to an address in the U.S. is included with membership in **FOG** for $24.00 per year. See chart below for the additional postage required for other locations. Address all inquiries to **FOG**, P. O. Box 3474, Daly City, CA, 94015-0474. The voice phone is (415) 755-2000.

Officers and Trustees of FOG

President/Founder & Trustee	Frank Morton
Executive Director	Gale P. Rhoades
Corporate Counsel	Jim Schenkel
Trustee	John Gaudio
Technical Support Manager	Jack Brown
Vice President & Trustee	Philip Moore
Corporate Secretary & Trustee	Bob Kavinoky
Trustee	Alan Chattaway
Trustee	Walt Beaudry
Asst. Editor, *FOGHORN*	Joanne Bransdon
Editor, *FOGHORN* & Trustee	David M. Oates
Chief Financial Officer & Trustee	Kennie L. Smith
Trustee	Ron Forsythe
Trustee	Jim Switz
Office Manager	Bobbie Freitas

SYSOPs of FOG

FOG System #1	FOG office
FOG System #4	Roy Robinson
FOG System #10	George Peace
FOG System #13	Whitney Boutin
FOG System #16	Mike Faith
FOG System #19	Russ Howell
FOG System #22	David Jung
FOG System #25	Matthew Reed
FOG System #28	Fred Stuart
FOG System #31	Jim Switz
FOG System #34	John Keenan
FOG System #37	Stan Countz
FOG System #40	Phil Moore
FOG System #43	Ralph Frost
FOG System #46	Phil Burnstein
FOG System #2	Peter Heckmann
FOG System #5	Frank Morton
FOG System #11	Bond Shands
FOG System #14	Jonathan Block
FOG System #17	Guy Gamble
FOG System #20	
FOG System #23	Ernie Dryden
FOG System #26	Ron Lendon
FOG System #29	John Kinsella
FOG System #32	Jason Bloomberg
FOG System #35	Mike Armstrong
FOG System #38	Gerald Wright
FOG System #41	George Porcella
FOG System #44	David Bonds
FOG System #47	Rene Champagne
FOG System #49	Peter Zuroff
FOG System #3	Gale Rhoades
FOG System #6	FOG office
FOG System #12	Troy Soult
FOG System #15	Livingston Hinckley
FOG System #18	Ron Forsythe
FOG System #21	Nigel Grant
FOG System #24	Curt Edwards
FOG System #27	Bob Herrin
FOG System #30	Mark Sevi
FOG System #33	Kenji Nakadegawa
FOG System #36	John Wethington
FOG System #39	Steve Ekwall
FOG System #42	Robert Burr
FOG System #45	George Owen
FOG System #48	Dick Worth

To contact any of these Trustees, officers, or SYSOPs, please write c/o the FOG office.

First Class Postage Rates

The following is a list of additional charges (**per publication**) which must be included with new or renewing memberships effective 3/1/85:

Canada & Mexico (First Class)	ADD...$ 9.00
Members with U.S. addresses who prefer First Class delivery to Non-profit bulk mail	ADD...$ 9.00
Central & South America, Caribbean, and Europe (Airmail First Class delivery)	ADD...$12.00
Asia, Africa, & Far East (Airmail First Class)	ADD...$15.00
Out of North America preferring surface mail — delivery not guaranteed	ADD...$ 6.00

• • • • • • •

Please Help

It is essential that you include your account (membership) number in all correspondence. ***Omitting your membership number will needlessly delay shipment of your order.*** It is **not** necessary to write a separate check for each different order. Consolidating your requests and sending only one check will save the staff considerable time.

• • • • • • •

© COPYRIGHT 1986 by FOG for the exclusive use and enjoyment of its members. Any reprint or reproduction must be approved, in writing, in advance, by FOG.

***INDEX** cont. from page 1*

PROGRAMMER'S TOOLBOX

58 ***C/80 Tips*** . . . . *by Author Unknown*
Bits and pieces on the Software Toolworks C/80 compiler from an unknown author.

59 ***The Shell Sort*** . . . . *by Carl Tenning*
A useful sort routine in MBASIC.

61 ***How About a Quick Sort?*** . . . . *by Carl Tenning*
The Quick Sort is usually faster than the Bubble Sort and the Shell Sort.

64 ***On the Blink*** . . . . *by Jim Cooke*
If you want blinking text without a lot of typing, try this.

64 ***On the Use of Control A*** . . . . *by Jim Cooke*
You can use control A in BASIC, to change a line number in the EDIT mode and to view the contents of a file used in a program.

FOG MEMBER LIBRARY NEWS

65 ***Library Notes*** . . . . *by Jack Brown*
FOG disks CPM.026 through .031 are introduced.

SYSTEMS

68 ***"Care and Feeding" Class, A Hit with Members!*** . . . . *by Jim Holmes*
How to restart a program and cold boot to Drive B.

69 ***Heat Solutions for the Osborne*** . . . . *by Ken Moon*
This heat solution is not as formidable as it sounds and you'll be amazed at the difference.

69 ***Doing It Yourself*** . . . . *by Monroe Chasson*
After mustering up the courage, Monroe did a homemade repair job to stop the intermittent jiggling of the Exec monitor.

71 ***Connecting a "Dumb" Terminal to the Executive*** . . . . *by Joel Bluming*
An alternative to buying another Executive.

72 ***The Ultimate Osborne Upgrade?*** . . *by Amer W. Nelson*
The DEC Rainbow B can be a stand-alone 16-bit computer running under CP/M-86 or MS-DOS or a terminal for DEC minis. Here, Amer describes it as an adjunct to an Osborne system.

73 ***Switching the LPRINT to the Console and back to the Printer*** . . . . *by Carl Tenning*
By altering CP/M's IOBYTE function, LPRINT statements can be switched to print on the console instead of the line printer.

74 ***Interfacing the Model 100 with the Ozzie*** . . . . *by Joe Santangelo*
File transfer between Radio Shack's Model 100 and the Osborne 1.

cont. on page 79

FROM THE FOG

It's Your Choice! — Twice

by Frank Morton

Normally I won't make much (if any) mention of FOG's other publication — the ***FOGLIGHT*** in the ***FOGHORN***, but some comments I made in the February issue of ***FOGLIGHT*** apply to all FOG members. Therefore I am repeating some of them here.

As you may or may not know the parallel publication ***FOGLIGHT*** was so named by a decision of the Board at its January meeting. The comments made by me in the ***FOGLIGHT*** follow.

There has been some discussion and confusion about how the FOG AMOs should handle subscribers to the ***FOGHORN*** and/or ***FOGLIGHT***. Actually that is a matter that can only be handled by the individual local AMO organizations themselves. We do not have the right to tell the AMOs what they should do, nor do we wish to.

Some AMOs may decide to support CP/M only, or non-CP/M only. Many AMOs may wish to address both kinds of operating systems by means of SIGs (Special Interest Groups) within the local organization with each SIG dealing with different individual operating systems. There could be much to be gained by cross-pollination between such groups.

It is possible that some AMOs may decide to split into two separate AMOs or to support only one publication. That is for each local organization to decide. The question of rebates might arise, but such a decision is a matter for each individual member.

FOG's policy has been one rebate per membership per year. Each member has the right to choose which AMO organization, if any, receives that rebate. Some members choose that no organization be designated for their rebate. These members are considered members-at-large and their $6 rebate is left in the treasury for use in general FOG applications. That is your right if you so choose.

The only members who do not have a right to choose are those who pay their FOG dues directly to the local AMO organization rather than sending a check to FOG. In this case it is presumed that they are choosing to be considered members of that local AMO.

This has the benefit that the local AMO officers can forward FOG dues minus the rebate to FOG and have that rebate for immediate use by the local AMO organization.

For those AMOs that have local dues in addition to the FOG publication expenses, this rebate is normally considered a reduction applied to the local dues. If a group that has local dues does not receive a rebate for a member, then the member would presumably pay the full local dues.

When the price schedule was established for ***FOGLIGHT***, it was based on continuing the policy of one rebate per membership. Some members, in signing up for ***FOGLIGHT*** have requested that this subscription be entirely separate from their ***FOGHORN*** subscription.

Thus they are paying $48 per year (plus postage surcharge if they wish) and are entered under two different membership numbers. In such a case, two different groups can each receive a rebate for these members (or one group could receive two rebates).

For those members who choose the savings of combining the publications at a total of $42 per year, there is only one full membership with one rebate that can be assigned to a local group.

Incidentally, there are several cases of ***FOGHORN*** subscribers receiving and paying for more than one copy each month. These persons are all members of more than one AMO and have arranged a FOG membership through each group.

In conclusion, you are allowed a rebate for each $24 in publication dues, and you have a right to choose (at the time that you pay this amount to FOG) which local group, if any, will receive your rebate. A second publication added at the reduced rate of an additional $18 does not entitle you a second rebate.

If you are uncertain which AMO received your last rebate, check your address label. The very first line at the top of the label indicates the local AMO we have on record as your choice. You can change your choice of designated AMO any time you wish, but it will not affect a $6 rebate until the next time you pay subscription dues to FOG.

If you were not aware of these facts, I hope that they have been clarified for you. If you should still be uncertain on this issue, please contact the FOG office on the regular voice line — phone number (415) 755-2000.

Speaking of AMOs, a Summary of Board Actions is now being sent to the AMO officers after each Board meeting. If this information is of interest to you, check with your local AMO officer, or send a Self Addressed Stamped Envelope (SASE) to the FOG office with a request for the specific Summary of Board Actions that is desired.

In addition to the above, the Board voted at its recent meeting to allow you to pay for your membership and for orders of material with a credit card. A slight increase in membership dues and handling fees was agreed upon, but those increases are offset by an equal discount if you choose to pay by either cash or check. Check the announcements in your appropriate FOG publication or with the office staff.

As you should be aware, March is Election month for FOG. If you have not voted by the time you read this, PLEASE DO VOTE. Your input is very important to FOG! Although provisions are made for Proxies, it is much better for you to vote for yourself. Read all of the information that is available and choose the candidates you wish to support. In particular, read

⇨

the statements by the candidates included with your ballot and election material, then vote for the candidates whose comments appeal to you.

The return of about 30% of the membership voting in the past has been excellent for the mail-in type of vote that we have, but we would like even more of the membership to be involved. You cannot go too far wrong, as all of the candidates are experienced FOG members who have already provided a lot of valuable support and service to FOG.

So for the sake of FOG and in appreciation for the efforts of our candidates DO GET YOUR BALLOT OUT AND VOTE! FOG thanks you and I thank you.

◆ ◆ ◆ ◆ ◆ ◆ ◆

Let's See, Put the Reviews There, Library News Over Here . . .

David M. Oates
Editor

Well, it's kind of like rearranging the furniture. Unless you're a very new member, you should have noticed some format changes in this ***FOGHORN***. The content is the same — from members for sharing with other members — but some of the sections have been renamed and/or redefined.

Many of the old sections were designed around the products of the Osborne Computer Corporation and its bundled software. That format supported the needs of and best reflected the environment of the membership in FOG's early years.

That environment changed some time ago, but the ***FOGHORN***, for the most part, didn't.

It has now!

Some section headings have survived; **FROM THE FOG**, **ARTICLES**, **BOOK**, **HARDWARE**, and **SOFTWARE REVIEWS**, **FOG MEMBER LIBRARY NEWS** and all of the **REGULAR FEATURES**.

APPLICATIONS TOOLBOX is gone, **TIPS FOR TYROS** has become **NOVICE NOTES**, and **SYSTEM NOTES** has been dispersed — the material going into more specific sections.

Without describing them, the new sections are; **WRITING TOOLS**, **MANAGING DATA**, **GOING INSIDE**, **PROGRAMMER'S TOOLBOX**, **RUN THE NUMBERS**, **TELECOMMUNICATIONS**, and **SYSTEMS**.

We (the **FOGHORN** staff) are going to perform some other, less noticeable, experiments with the format. The goal is to improve production. And, to aid in achieving that goal, Joanne Bransdon has written an author's guide, and published it in this very issue. Look for it!

At this writing, the results of the recent FOG Survey (from your Long Range Planning Committee) have not been tabulated and I haven't seen any previews, so I hope we have covered some of your suggestions, having used only our expert and professional insight (or was it "the seats of our pants?").

Speaking of authors. I feel the need to remind all of you that the ***FOGHORN*** is written by you. It works because members enjoy sharing their knowledge and/or discoveries. It does work! Keep it up.

The *FOGHORN* index department. I'm not supposed to talk about it — it's too soon — there's nothing definite that I can report — but . . . I've heard that there are expert, professional indexers looking into a new, improved, expert, professional type, index for ***FOGHORN***. If that's true, I hope it includes a field for the author's name.

That's it for now. Remember the changes are new to all of us, so please help me keep an eye on them.

◆ ◆ ◆ ◆ ◆ ◆ ◆

Writer's Guidelines

by Joanne Bransdon

FOGHORN wouldn't exist if it weren't for the contributions of members. We really appreciate your efforts and have put together some guidelines to help both you and us get material into both FOG's publications faster and easier.

Before going into the guidelines, here is a brief description of how we prepare copy for typesetting which might help explain the reason for some of the guidelines.

We use WordStar but without printing commands (i.e., the codes for boldface, underline, etc.). We insert codes that the typesetting machine recognizes to create these effects. Each paragraph is indented by one WordStar default TAB and there are no line spaces between paragraphs except when a new section is begun by a cross head. We use upper and lower case for headings and cross headings, not all upper case.

Here are the guidelines:

1. All written material should be WordStar compatible with NO print commands, e.g., no control PB, control PS etc.
2. Avoid word hyphenation (hyphen help OFF), hard carriage returns, right justification of text, centering text, or blank lines between paragraphs.
3. Keep paragraphs reasonably short. A suggestion here is "one thought, one paragraph". This makes for easier reading and also makes reformatting easier.
4. Format your submissions to 70 columns or less; 65 is ideal.
5. Use the WordStar default tabs for indentation (i.e. 6, 11, 16, 21, etc.).
6. Put the filename at the very top of the first page and be sure that the filename does NOT include the words **FOG**, **FOGLIGHT**, **FOGHORN** or **README**. A couple of suggestions for naming files: author's initials, intended publication and an extension identifying the section you feel your article should be placed; e.g., **JBFH.LTR** which would mean Joanne Bransdon, ***FOGHORN***, letters section; or initials, catchword and an extension of the publication you are submitting for, e.g., **JBLTR.LTE** (Joanne Bransdon, letter, ***FOGLIGHT***).

7. Use only upper and lower case for headings, cross headings. In other words don't use all upper case.
8. Use ALL UPPER CASE for the words FOGHORN, FOGLIGHT, filenames, and print commands, e.g., ^PB, ^KK etc. The use of the letter "K" when it refers to disk space, e.g. 170K should be capitalized.
9. Use the word "disk" rather than disc or diskette, MS-DOS rather than DOS and don't use PC as a generic term for personal computer or as a reference to the IBM-PC. Write "IBM-PC" or "IBM-clone" and "personal computer".
10. Carriage return is indicated by the term <CR> (upper or lower case is fine) and there should be NO SPACE between a command and the <CR>, e.g., WS<CR>.
11. Give your article a suggested title. This also applies to letters as we use headings indicative of the letters rather than just: "Dear FOGHORN", "FOGLIGHT", "EDITOR", etc.
12. Don't forget to include your name, address and contact number — (the latter two are required should we have to check on any of the information in your article). It is also very helpful if you date your contributions.

The Best Ways to Send In Contributions

We REALLY prefer that all submissions be sent on disk (otherwise they have to be keyed in which is time consuming) by mail (to FOG, P. O. Box 3474, Daly City, CA, 94015) or uploaded to FOG RCP/M #6 at (415) 755-8315. This is a special system which does not require advance registration in order to upload to this system. If you send your contribution on disk and specify the library disk you would like, we will overwrite your disk with your library request. Authors who send in disks but do not request a library disk, usually will receive a copy of the FOG starter disk (either CP/M or MS-DOS).

All contributors will receive acknowledgement that their material has arrived and is being processed.

Time Frame for Publication

The time frame from material arriving at the FOG office to it appearing in the ***FOGHORN*** can be up to four months. The time frame for ***FOGLIGHT*** is shorter, though it could become longer as more contributions come in.

Guideline Copies Available

These guidelines are now available for distribution to members and will be sent out with the acknowledgement that your copy has been received. You also can request a copy.

Please, keep those contributions coming. If you have any questions on the guidelines or about editorial style, feel free to call or write in.

* * * * * * *

Have a Submission?

Please refer to the ***FOG Membership Information*** brochure (which is sent to each member with the **FOG** membership card) for information about submitting material to ***FOGHORN*** or to the disk library.

* * * * * * *

Tell Us About Your CP/M Expertise

by Joanne Bransdon

We know there are a lot of you out there in the membership and we'd like to put you on our list.

I'm speaking about those of you involved with providing products and services for the CP/M market, e.g., computer consultants, technicians, specialized suppliers, etc.

We are compiling a list and would like any of you who fit the category and who are interested to WRITE to us detailing your products/services. If you also service the 16/32-bit market, send us those details too. We do not plan to publish the information but to keep it as reference material.

FOG regularly receives calls from people who need a specialized, professional service or a correct contact for a particular product that is not readily available.

Please, only written submissions. We can't take details over the phone. Write to FOG, P.O. Box 3474, Daly City, CA 94015-0474.

* * * * * * *

POLITICS . . .

by David Oates

Editor

As many of you know, I have a policy which excludes political material from the pages of ***FOGHORN*** and ***FOGLIGHT***. It was established after the membership sent me a negative response to such material published, in the ***FOGHORN***, last March (1985). Until the membership tells me otherwise, that policy stands.

The advertisement titled *IS SOMETHING ROTTEN IN FOG?*, paid for by "concerned FOG members", was run in the February issues without my knowledge. I don't review or handle advertisements. Since this is the first time such an ad has been placed, the staff, which handles advertisements, had no reason to be watching for such a thing — it got through.

It will not be repeated, and it does not represent a policy change.

* * * * * * *

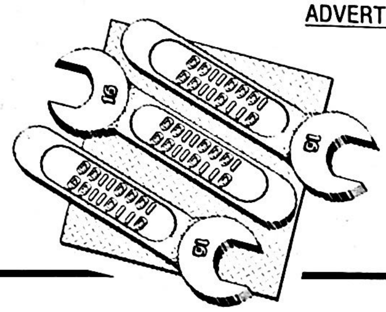
11th Annual WCCF

FOG will, as usual, have a booth (#435) at West Coast Computer Faire. The show will be at the Moscone Center April 3 – 6, 1986. If you will have some time to donate to FOG, please contact the FOG office. We need volunteers who can work a four– hour (10am – 2pm or 2pm – 6pm) shift Thursday, Friday, and/or Saturday or who can work 10am – 3pm Sunday.

Even if you can't help staff the booth, a visit to the show is an experience you shouldn't miss.

* * * * * * *

Z80 CP/M USERS TAKE HEART! HERE'S ALL YOU NEED TO WRITE YOUR OWN PROGRAMS FOR ONLY: $25.00!



DR. DOBB'S Z80 TOOLBOOK

By David E. Cortesi

Do you use CP/M? Do you feel as if the only part of the computer industry that has *not* abandoned you is your own Z80 computer? It keeps on working, but when you need programs for it, you have to write them yourself. When you do, you quickly find that while Pascal or Basic is okay for some things, there is often no substitute for the speed, small size, and flexibility of an assembly language program.

DR. DOBB'S Z80 TOOLBOOK puts the power of assembly language in the hands of anyone who's done a little programming. You'll find:

- **A method of designing programs and coding them in assembly language**—and—a demonstration of the method in the construction of several complete, useful programs.
- **A complete, integrated toolkit of subroutines** for arithmetic, for string-handling, and for total control of the CP/M file system. They bring the ease and power of a compiler's runtime library to your assembly language work, without a compiler's size and sluggish code.

Best of all, every line of the toolkit's source code is there for you to read, and every module's operation is explained with the clarity and good humor for which Dave Cortesi's writing is known.

Order the Z80 Software on Disk! Save Yourself the Frustration of File Entry

All the software in **DR. DOBB'S Z80 TOOLBOOK**—the programs plus the entire toolkit, both as source code and as object modules for both CP/M 2.2 and CP/M Plus—is yours on disk. (A Z80 microprocessor and a Digital RMAC assembler or equivalent are required.)

Receive **DR. DOBB'S Z80 TOOLBOOK**, along with the software on disk, together for only $40.

To order, return this form with your payment, plus $1.75 for shipping in the U.S., $3.75 outside the U.S., to: M&T Publishing, 2464 Embarcadero Way, Palo Alto, CA 94303.

Or, for faster service on credit card orders, CALL TOLL FREE 1-800-528-6050, ext. 4001. Refer to item #022 for the **Z80 Toolbook** and item #022A for the **Z80 Toolbook** with the disks. Please specify one of the disk formats offered below.

Send me ____copies of **DR. DOBB'S Z80 TOOLBOOK**:
$25 ea ________

Send me ____sets of **DR. DOBB'S Z80 TOOLBOOK** along with the software on disk for $40 per set:
$40 ea ________

Subtotal ________

(CA residents add applicable ____% ________
sales tax.)

Shipping ________

TOTAL ________

For the Z-80 software on disk, please specify one of the following formats:

________8" SS/SD ________Osborne
________Apple ________Kaypro

Check enclosed ________ Charge my ______ Amer. Exp.
________ VISA________M/C

CARD # ________________ EXP. DATE ________
SIGNATURE ________________
NAME ________________
ADDRESS ________________
CITY ____________ STATE ________ ZIP ________

Your order will be shipped within 5 days of receipt.

4013

LETTERS

Comments on Footnote Programs

I am writing in response to Eric Meyer's letter of 26 August 1985 and to a letter and review copy of the most recent update of Footnote I received from Pro/Tem Software. Let me first thank them for their prompt and courteous replies.

I would like to update my comments on wsNOTE and start by admitting the error of my ways: as Eric states in his letter, I incorrectly ascribed to his wsNOTE program a foible only to be found in the previous public domain version: FTNOTE14.COM will produce "[1] ,[2], [3]" whereas wsNOTE will indeed produce "[1], [2], [3]". (I've already mentioned to him that "[1,2,3]" would be even better, if he could incorporate it into a future revision.)

Regarding merging endnotes back into the file: since extracting footnotes to an endnote file and numbering them are separate processes with FTNOTE14.COM, it is possible to extract notes to an endnote file, perhaps to put the notes close by one another for ease of editing.

One may then use the **-r** option to merge the notes back into the main text file so the footnotes again appear at the end of the paragraph where they are called, still unnumbered, thus permitting easy reediting.

However, with wsNOTE, it is possible to merge an endnote file into numbered page-bottom footnotes in the form of a noneditable ".PRN" file, but unlike FTNOTE14.COM one cannot merge them back into the original ".DOC" file.

I would guess that this is an insignificant shortcoming for most users, but I think FTNOTE14.COM's method makes editing easier.

A kudo and a complaint: In recent weeks I have become quite enamored of wsNOTE's **.FB** figure-block formatting.

To be truthful, I've used wsNOTE for simple figure block formatting in many times, and only used it for footnoting in one instance.

A hint for using this function: after you've created your figure or table, you must calculate the number of lines in the figure block and put it in the **.FB xx** dot-command. Simply put a **.PA** right before the beginning of your figure block, put the cursor on the bottom line of the figure block, and read the line number off the top of your WordStar screen (where it says **B:FOGLTR2 PAGE 2 LINE 11 COL 17.**

Change the **.PA** to **.FB xx** where "xx" is the line number you read off the top of the screen, and you're set.

There's one minor problem with the figure block feature. If you get more than a page-full of figure blocks in the figure block buffer, as when ao half-page figure and a two-thirds-page figure are both saved in the buffer, they will both be printed on the same page but the bottom of the last figure will be lost.

It's easy to catch this and correct it, but you should look for it in proofreading.

I look forward to future versions of wsNOTE (and the MS-DOS version).

I would also like to expound a bit on the new copy of Pro/Tem's Footnote I just received (it's version 4.1).

First, they have eliminated the option of typing in your footnotes in the middle of a paragraph; as I said in the review, I didn't think that was useful anyway.

They have also improved the documentation so it is a joy to read and use, and have added two new features, one nice and the other extremely useful.

Some footnotes will not fit in their entirety on the same page as their footnote call; now you may select whether you prefer to split the footnote, moving part of it to the bottom of the next page, or would prefer that the entire footnote be moved to the next page, the text with the footnote call accompanying it.

The more important new feature, however, is the ability to use cross-references. Although the manual explains that it is for use thus: so that if you edit the file making note 5 turn into note 7, your phrase **see also reference 5** will automatically be modified to say: **see also reference 7**.

With a tiny bit of adaptation, however, you may use this feature to allow multiple out-of-sequence references in a paper, e.g. [4,11,12,13] where references 11-13 are being cited for the first time, but reference 4 had been cited earlier. However, those of you with single density drives should know that with these improvements, the program has swollen to a massive 42K.

Unlike Eric Meyer's wsNOTE, you may reedit the output files of Pro/Tem's Footnote as many times as you wish, simply adding new footnotes and calls, then running the file through the program to renumber.

However, with the new cross-referencing feature, even more control-characters appear in the file, and if you've patched WordStar to use the user-defined control-characters (**^Q**, **^W**, **^E**, **^R**) for printer options, you must strip out all these control characters before you print the file or your printer will have a seizure.

If you will need to strip out these characters each time you want to print the file, I think you will find wsNOTE considerably easier to use, but you will have to forgo Footnote's valuable cross-referencing feature in exchange for wsNOTE's figure-block feature.

Again, I am once more forced to conclude that both programs are useful and strong programs. Your decision of which you might want to get depends on which features you find most important.

Keith Conover
Pittsburg, PA

[Keith's detailed review of Footnote, FTNOTE14.COM and wsNOTE is in the February 1986 issue of the ***FOGHORN*** *(pg. 33). Joanne]*

• • • • • • •

How I Broke the Code on SETUP's Printer Initialization String

You should know I'm another of those avid readers whose life comes to a halt each month until the ***FOGHORN*** is read from cover to cover so I am finally making the effort to thank you and all your other contributors for excellent, practical help each month.

I now have a couple of Executives and a trusty old O-1 and though the going hasn't always been easy, I can thank OCC for one thing — creating a good, inexpensive machine and having the sense to bundle together some useful software that the user isn't liable to outgrow.

How many so-called personal computers are off in the corner gathering dust because the buyers weren't lucky enough to get hold of good software right off and so became disenchanted before they learned to appreciate the potential of their computers?

For the combination of excellent machine and good software, I will remain eternally grateful.

Every time I think of some neat thing to do, I end up buried in manuals for hours or days and sometimes I do not come up with solutions.

I love the SETUP routine for the Executive. Since I use my Executives for several things, such as driving Epson and Okidata printers, Royal typewriters, and my shop's Varityper digital typesetting system, I have to configure disks differently all the time.

Each time I called up SETUP though, I was intrigued by the printer initialization string option, which was virtually undocumented other than to tell you to consult your line printer manual. I know nothing about assembly language, and very little about CP/M and BASIC. But I am working with dBASE II a lot, and have been miffed more than once by Epson's documentation, which dwells totally on BASIC commands to drive the printer.

Well, with a lot of effort, I finally have broken the code for the printer initialization routine, and thought I would help others through this maze.

Life just shouldn't be so complicated.

What I wanted was this: I have commercial software for estimating work at my printing plant which we run on the Executive daily. I use the Epson FX-80 because with it, a second sheet of continuous paper is not wasted each time you want to pull out the last-printed estimate.

But the routine was always printing virtually the full width of the sheet, and usually went three or four lines onto the second sheet.

I wanted to configure the printer for seven lines to the inch, to call up Elite type to squeeze the stuff onto the page more efficiently, and to indent from the left about eight spaces so we could punch the printed estimates and file them away in a notebook without putting holes through the printed material.

Three simple commands which Epson listed:

`CHR$(27)''M''` Turns Elite Mode ON
`CHR$(27)''0''` Sets line spacing to 7/72nds inch
`CHR$(27)''1''CHR$(n)` to set left margin (the n would represent the number of spaces)

I won't bore you with all the things I tried. Here is what I got to work. In all instances, the `CHR$(27)` can be substituted for the character function equivalent of the 27th decimal character — the escape key <**ESC**>. Consult your ASCII table in the back of the ***Executive Reference Manual***. The first two codes, then were just a matter of keying:

<**ESC**>**M**<**ESC**>**0** (no quote marks and no spaces)

But the third one blew my mind. It turns out that the CHR$(n) is asking for the decimal equivalent of the number. I wanted an eight space offset, so I wanted decimal 8 or hex 08. But the Epson book listed no character or function equivalent for 0 through 6 so I was lost. At least until I remembered the table in the back of the ***Osborne Executive Reference Manual***, which shows how to access all these codes on the Exec. Turns out **^H** (control H) calls for decimal 8.

So, after hours and hours of searching, here is what I finally keyed as my initialization string which automatically sets my Epson FX-80 for printing my estimates compactly and conveniently on a single sheet of paper:

<**ESC**>**M**<**ESC**>**0**<**ESC**>**l^H** (Escape M, escape zero, escape lowercase l, control H.)

Now the line printer fires up and does its thing with absolutely no effort on my part — every time the estimating disk is booted up on the Executive.

I will note that the page offset codes do not work consistently. When I finally got something to work, I gave up. Perhaps someone else can enlighten us further.

Since I have deciphered this routine, I have configured my SuperCalc disk to always give me compressed print (I always have too many columns for pica print), and again, on offset so I can put my printed spreadsheets in a binder without punching holes through the printed material.

A word of caution regarding WordStar. You have the ability WITHIN WordStar's own installation routine to send an initialization string to your printer, and that's the best place to do it. If you have an initialization string on your CP/M tracks, it will be preempted by your WordStar routine.

The CP/M initialization codes go to the printer only the first time data goes out from the Ozzie. So if you cut the power to your printer, you lose the initialization string. But WordStar sends its initialization string each time it talks to the line printer — a preferable procedure.

Richard L. Hopkins
Terra Alta, WV

* * *

Delivery Problems?

Please refer to page 2 for the additional postage charges for First Class and non-U.S. delivery of ***FOGHORN***. **FOG** cannot be responsible for non delivery of copies sent bulk mail.

* * *

Printing 12cpi on the Gemini 10X

I hope the following answers James T. McCollum's question in his letter in the November 1985 ***FOGHORN*** **(Correcting .AV Prompts in MailMerge)**.

To create a version of WordStar that causes the Gemini 10X (as well as most, if not all, dot matrix printers that have the elite mode) to begin printing in 12cpi, all that needs to be done is to enter the code for the elite mode, (e.g., 1B 4D for the Gemini and Epson printers, 1E for the ID5 Microprism) into the initialization string (which begins at PSINIT and ends at P5INIT+F). (Of course the value at PSINIT itself should be increased to accommodate the additional bytes.)

To complete the configuration, it is advisable to enter into the INITRM address the value corresponding to the user's desired final or "print-time" right margin. For example, I prefer one inch left and right margins, so I enter **4D** (column 77) into the INITRM address (although 76th is the right-most column WS "agrees" to boot at).

Users preferring other margins, let us say, 1-1/2 inches, will have to enter a smaller value.

The advantage of this configuration is having WS center the page number automatically. WordStar determines the page number column by dividing into two the right margin in which it boots rather than the one in which the text was reformed last.

I believe it pays 50 column Osborne 1 users who care about having page numbers printed and centered, to switch to 51 columns for editing purposes by means of a function key set to **^OR51** ↵. If they take the alternative of patching WordStar, they have to remember to insert a **.pc** * dot command at the top of each document.

Next it is necessary to take care of the left margin or the offset. The most readily apparent solution is to change the value at **INITPF + 18** (in WS 2.26; **INITPF + 17** in WS 3.30) from 08 to the one matching the user's desired left margin. For example, to obtain a one inch left margin at 12cpi on the IDS Microprism, the appropriate value is 09, on the Epson FX-80+ it may be 09 or 0A.

A better solution, however, is to enter 00 into the **INITPF + 18** (+ 17 in WS 3.30) address, and then to enter the printer's own left margin code into the initialization string.

For Gemini and Epson printers (and compatibles), this code is **1B 6C ??**. The value at the **??** slot must be determined through experimentation depending on the desired left margin. Since I prefer a one inch left margin, I enter **1B 6C 09**.

For the IDS Microprism the code is **1B 4A ?? ??**. Again, since I prefer a one inch left margin I fill the ?? ?? slots with **39 30**, i.e., the hex codes for the symbols 9 and 0 in the ASCII table, which the IDS "understands" as or "translates" into the quantity 90.

If the **1B 4A ?? ??** sequence is inserted into the beginning or the middle of the initialization string so that there is an entry to its right, it is necessary to add the byte 24 — the hex code of the **$** sign — which the IDS "respects" as a separator between two command strings. Again, the first byte at PSINIT must be changed to accommodate the increase in the number of bytes in the initialization string.

This configuration affords the following advantages. First it is possible to switch back and forth between different pitches, e.g., Elite, Pica, Expanded Elite, Expanded Pica, Condensed, etc., within the same document, without having to insert **.po** * dot commands to keep the left margin even.

No matter what pitch the printer will switch to, it religiously will maintain the same left margin — the one determined in the initialization string — until it receives a new left margin command, or a reset code.

Second, suppose the user wants to underline text spanning several lines, i.e., line 1, 2, 3, . . . n. Then, no matter which printing commands (^PQ, ^PW, ^PE, ^PY) are used to activate (and terminate) "true" or "continuous" underlining, the printer will not underline the margins to the left of the lines 2, 3, . . .n. (The only other way to achieve the same results is to enter the underlining codes in the addresses **PALT** and **PSTD**, so that **^PA** begins and **^PN** terminates the function.)

As can be learned from Ted Silveira's *WordStar Deluxe* article (see the July/August issue of ***PROFILES***, page 48), many users of printers capable of true underlining who want to underline text spanning several lines, apparently turn the continuous underlining off at the end of each line and then turn it on again at the beginning of the next.

The use of the printer's own left margin (instead of WS's) makes the "underlined left margin" problem disappear.

Yigal Zan
Department of Anthropology
University of Guam
Mangilao, Guam 96913

* * * * * * *

Good News and Bad News

I would like to relate some bad and good news to the members.

We recently purchased a 10 meg Hard Disk ($890) from Datamasters at 675 East Brokaw Rd, San Jose, CA 95112, (408) 287-3370.

The bad news happened on a Monday morning in that the hard disk did not show signs of booting since there was no power when turning on the switch. I guess the power supply failed. We have had the same thing happen to computers, televisions, microwave ranges, etc. I called the company to tell them of our problem.

The good news happened on Wednesday morning when a new hard disk arrived via UPS from Walt Zemitis, the President of Datamasters. After loading my backup files, we were back to work.

The Datamaster's 10 meg hard disk is an excellent product and works well with the Vixen. I am sure it will work as well with and O-1 too. We recommend the product.

As for the service from Datamasters, what more can I say after the proven performance of excellence?

Bill Quinn
Saint Petersburg, FL

* * * * * * *

A Few Tips

I was surprised the other day by a request to send in my Brother EP44 letter on floppy for easier editing into the ***FOGHORN***. So I decided to add a couple of tips I've collected, and pass them along in gratitude for all the help I've received in the newsletter and from Gale and others (by phone).

Tip #1 — Intersystem Document Compatibility

(This should apply to WordStar 2.26, and maybe later releases.)

I have often moved documents back and forth between word processor and/or computer systems — especially to and from UNIX — and wanted to print under WordStar. The first step is to get a draft printout — don't edit the text until you've seen how it comes out on your printer! There are many peculiar-looking things UNIX's NROFF will do to text, (e.g., for underlining or bold printing) that may work. See if it works before changing it.

One simple step: on the first line insert:

.po 0

to prevent line overflow, i.e., WordStar's page offset from doubling up with the edited source's margin.

If the text is all hard returns, it's difficult to reformat it with WordStar, since a hard return normally means an end of paragraph. If there are few tables, the following procedure should help you edit even quite a large document quickly.

The strategy is to eliminate the left "page offset" and all hard returns in a way that preserves an indication of where the paragraphs are, then put the hard returns back only where the paragraphs ended; and finally reformat as desired.

The tactic is to eliminate the margin, find every hard return and convert it to a document-unique character (I often use @). Next replace every triplet, pair, etc., of @s with a hard return, remaining @s with a null, space or return as appropriate.

For some reason, some parts of the search are unduly slow. A tip from FOG, the use of **^S** (control S) with **^QA**, is the answer.

(In the following, # represents the space bar.)

The sequence is as follows:

* Bring up a copy of the document to format under WordStar. To remove the left margin type (normal RETURNs not shown):

  ^QA
* In response to the FIND?, type:

  ^P^N######## (This specific sequence will remove the default left margin on this original, pre-FOG letter.)
* In response to the REPLACE WITH?, type:

  ^P^N (to replace the return).
* In response to the OPTIONS? type:

  GN (global, no questions specification).
* IMMEDIATELY after replacement begins, type:

  ^S (stops updating screen, permits high-speed replacement)

This should put the document at the left margin, so that the following changes won't leave large gaps.

Next, type:

^QA

and in response to the FIND?, type:

^P^N

* In response to the REPLACE WITH?, type:

  @ (or other document-unique string).
* In response to the OPTIONS? type:

  GN
* IMMEDIATELY after replacement begins, type:

  ^S

The document will be converted into one long sentence (slowly: two minutes 50 seconds for a 7300 byte letter), with the @s wherever there were returns. Now, repeat the scheme, this time replacing @s with hard returns.

Next, type:

^QA

* In response to the FIND?, type:

  @@@
* In response to the REPLACE WITH?, type:

  ^P^N^P^N^P^N (represents three hard returns in the REPLACE command).
* In response to the OPTIONS? type:

  GN
* IMMEDIATELY after replacement begins, type:

  ^S

  The paragraphs with an odd number of returns are fixed.
* Next: **^Qa** and in response to the FIND?, type:

  @@
* In response to the REPLACE WITH?, type:

  ^P^N^P^N (represents two hard returns in the REPLACE command).
* After OPTIONS? type:

  GN
* IMMEDIATELY after replacement begins, type **^S**.

The remaining paragraphs with an even number of returns are fixed.

The "one long sentence" should now regain its paragraphed appearance, except for short "paragraphs" such as address lines, tables, etc. These will be fixed later.

The next replacement is: **^QA** and after FIND?, type:

-@

REPLACE WITH?, type:

↵ (provides a null).

After OPTIONS? type: **GN** and immediately after replacement begins, type: **^S**.

This replaces all hard hyphens with nulls, which may not be satisfactory; but it is often the best solution, since there are fewer necessarily-hyphenated words than there are "hyphen help" words.

An alternative would be to make this interactive by deleting the "N" in "GN" and changing each individually.

Next **^QA**. At FIND?, type:

#@ (where # is the space bar).

At REPLACE WITH?, type:

# (turns [WordStar] end-of-line into a space for future reformatting).

Type **GN** in response to the OPTIONS? and immediately after replacement begins, type **^S**.

Next FIND @ and REPLACE WITH:

^P^N (end-of-line for short lines)

Use the **GN** OPTIONS and type **^S** immediately after replacement begins.

When this finishes, you should have a reformattable document. Set your new margins, justification, etc., and then reformat as usual (^B or ^QQB).

If you format to different pitch, characters per line, lines per page, etc., you may need to delete or alter headings, footings and page numbers in the original.

This would be an ideal command sequence to "can" in a file, and to feed to WordStar through SUBMIT and XSUB: but I have never been able to make XSUB work as documented, and a reliable source told me that if I could, WordStar frequently bypasses CP/M's console input routines, so it wouldn't work anyway.

Any comment?

Tip #2: Quick Time Spec and Loading for SuperCalc2

An irritating aspect of SuperCalc2 is DATTIM.COM's requirement to supply (useless) hour and minute, as well as date, for use in support of SuperCalc2's TODAY variable. Instead of typing it in each time, I programmed function key 0 as follows:

#85↵
00#00↵
SC2↵
↵

where # again represents the space bar.

When DATTIM required a date, I supplied month and day, then hit **^0**, which supplied the year, supplied the 00s for the unused time, ended DATTIM, loaded SuperCalc2 and got past the commercial.

A nice side effect was that whenever I wanted to load SuperCalc, I just hit **^0**; CP/M sees a request to load "85" and "00 00" but ignores them, and almost instantaneously begins loading SC2.

Of course, you don't have to put the "SC2 . . ." part on the function key. I no longer do, since I now call DATTIM only from my DCQ.DAT Drive C initialization file.

John Michael Williams
Bethesda, MD

[Comment on Tip #1 . . . get HRDSFT (FOG/CPM.010) to do the carriage returns for you. Re: Tip #2; the space between the zeros (00 00) isn't necessary. I just type 0000. David]

* * * * * * *

A Few Words About Patches

I'm writing about Mr. Cassingham's article *Memory-mapped WordStar* that appeared on page 55 of the August 1985 ***FOGHORN***. With the patch (as amended in the September ***FOGHORN***), I found that my WordStar did indeed scroll with lightning speed. However, I encountered a few problems.

First, the screen no longer auto-scrolls as it previously did, so part of the time the cursor is off the screen to the right.

Second, when using **^Z** (or **^E** when the cursor is at the top of the screen), only the top two lines of my display are refreshed. I did not encounter this problem with **^C**, **^R**, **^W**, or **^X**.

Are these problems unique to my system or a probem with a patch?

Last problem . . . the patch doesn't work with my Osmosis 80-column board. Does it work with the Osborne 80-column version or the Nuevo 80-column board? How about with the Vixen, or with the MS-DOS version of WordStar? Having a faster-scrolling WordStar means a lot to me, so I'm very interested in circumventing the problem, or perhaps even buying a new 80-column board or even a Vixen.

Speaking of patches: to the authors of ***FOGHORN*** patch articles — please explain what the patch does. That way, when it doesn't work, maybe we can figure a way around the problem. For instance, with this video patch, I haven't the slightest idea what it's doing. I suppose I could try to find the patch on CompuServe, but:

1. I don't belong to CompuServe, and
2. My modem's broken right now anyway.

There's another good reason for documenting patches and fixes . . . I've learned more about CP/M, the Osborne, and WordStar from trying to follow the workings of patches than I ever learned from a book. A few more explanatory comments will keep me (and maybe others) from giving up in frustration when trying to modify (or just understand) the patches.

End of polemic, and thanks for all the patches — they make the ***FOGHORN*** a gold mine of information.

Keith Conover
Pittsburgh, PA

* * * * * * *

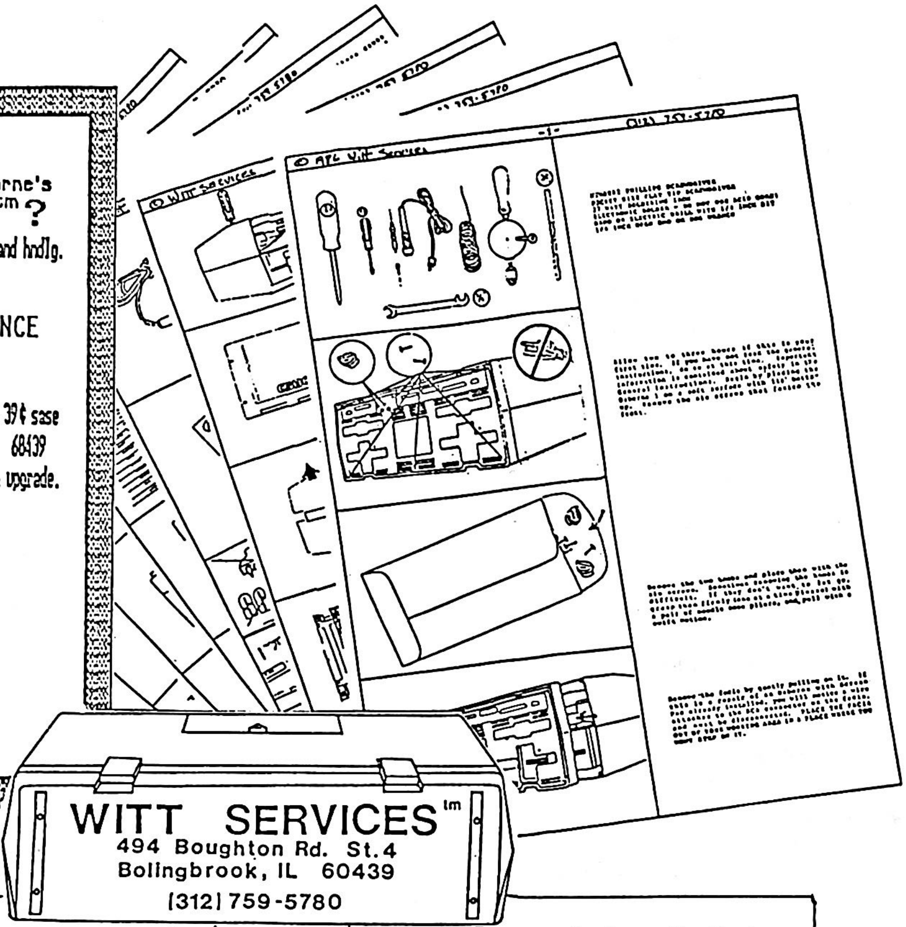
ADVERTISEMENT

ADVERTISEMENT

What does it take to install Osborne's
Screen — Pac™?
THE PARTS KIT FROM US • $99 + $5 shpg and hndlg.
A 27 OR 33 WATT IRON
SOME SOLDERING EXPERIENCE
(or a friend who has some)
A COUPLE OF HOURS
To get a free copy of the illustrated procedure send 39¢ sase
WITT SERVICES • 494 BOUGHTON • BOLINGBROOK, IL 60439
screen-pac is OCC's trademark for it's 80/104 column upgrade.

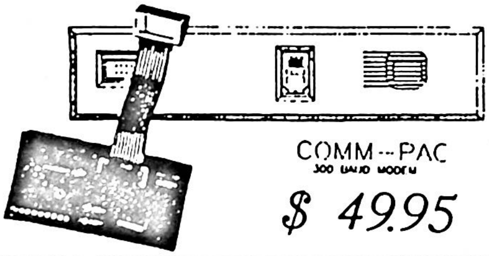
call us toll free (outside Ill.) to order

800 334 7506	orders only!
312 759 5780	more info tech questions



WITT SERVICES™
494 Boughton Rd. St.4
Bolingbrook, IL 60439
(312) 759-5780

Executive MODEM!



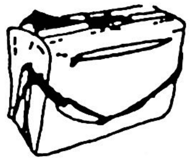
COMM--PAC
300 BAUD MODEM
$ 49.95

OSBORNE
COMPUTER CORPORATION

SCREEN·PAC™
The 52-80-100-column screen option.

$ 99 kit
$ 170 inst.

Case by JMM



$ 13.95

EXMON
$ 29.95

KEYBOARD
OAK OR TEC!

$ 29.95

Comments on Nicedate and a Few Questions

I echo the hundreds of comments on a super job — well done. Please continue. A few questions and comments.

1. This may be answered in the Library Directory. Is the source code for VD024.COM (.ASM) available? I'm interested in the code for the Find and Replace function. *[VDO.ASM is on FOG/CPM.032]*
2. Comments on **Nicedate** and **Nicedate Revisited** from the November 1984 and March 1985 ***FOGHORN*** s, respectively.

The @ technique in the November version has many more uses than that shown in the article. The memvar with **01January02February** . . . etc., is, in effect, a Lookup Table embedded in the code and is very powerful for a number of purposes.

It solved a problem I had been struggling with in trying to print titles based on a title code. The technique also can be used by putting the tables in a series of CASE statements to speed up execution for large tables.

The March version (**Nicedate Revisited**) can be simplified considerably by calculating the starting position of the desired month in the memvar MONTH, (I changed it to MONTHS to be a bit more descriptive), extracting nine characters and TRIMming the result into a memvar.

This is done by taking the first two characters of DATE() [the month], converting to a number with VAL(), multiplying by 9, and subtracting 8. The multiplication puts you at the last character of the desired month so subtracting 8 puts you at the first character.

The program follows:

```
* WORDDATE.CMD CONVERTS DATE() FROM NUMBERS TO TEXT
* e.g., 01/01/85 to January 1, 1985
* Jerome C. Okonski 06/13/85 Adapted from Nicedate program in
* FOGHORN 3/85
*
SET TALK OFF
STORE 'January  February  March  April  May     ;
June  July  August  September  October  November;
December' to MONTHS
IF $(DATE(),4,1)='0'
STORE $(DATE(),5,1) TO DAY
ENDIF
STORE TRIM($(MONTHS,VAL($(DATE(),1,2))*9-8,9)) TO MONTH
STORE MONTH+'  '+DAY+', '+'19'+$(DATE(),7,2) TO WORDDATE
RETURN
```

The memvar WORDDATE now contains the DATE() spelled out.

A couple of weeks after I spent a considerable amount of time figuring out the solution (I'm not a programmer by trade, just an avid enthusiast and user), I acquired the ***Advanced Programmer's Guide*** from Ashton-Tate. It has the same code listed for the problem.

The guide is a valuable reference tool for any serious user of dBASE although it does repeat listings of statements and functions etc., in every chapter where they are relevant. It seems redundant and space-consuming. This one minor criticism is all that I have though, as I already have learned much and I haven't finished reading it yet, let alone absorbing it all. Very thorough and comprehensive.

3. The letter from Fred J. Kaufman in the July 1985 ***FOGHORN*** mentions he submitted a copy of the dBASE programs and the .DBF file containing the indexes to all past ***FOGHORN*** s. I'd love a copy. Are they in the Library? How can I get them? *[The programs and data files are on FOG/APP.060 & .061. Jack]*

Jerry Okonski
Glen Ellyn, IL

• • • • • • •

Value in Old *FOGHORN* Issues and *Best of* Volumes

As I write this I have just about completed reading the November 1985 issue of ***FOGHORN*** and as usual, I have learned a good deal more about computing and the Executive. Each month I find a wealth of useful information and ideas. I'm still rereading old issues as lights come on and things I didn't understand begin to make sense.

*[Your point here highlights why we keep a large supply of back issues and reprint from them in our **Best Of** volumes. Gale]*

I am writing to request a copy of the best of Volume II of the ***FOGHORN***. I have Volume I and I have found it very useful. Also I want to renew my membership for 1986. FOG and ***FOGHORN*** are the two best values I know of as a CP/M hobbyist.

I did want to mention my feelings about CP/M versus MS-DOS or other operating systems: I hope FOG never gets too far away from CP/M. We have the strongest and best organization in CP/M and we should strive to stay that way. I use an IBM machine at work and I like the user friendly programs we have. As a hobbyist, I am equally attracted to the complexities of CP/M.

So let's not ever abandon or de-emphasize CP/M at the First Osborne Group.

Best wishes to all of you at FOG headquarters. Keep up the fine work.

W. Bruce Huyghue
Windsor, CT

• • • • • • •

CAVEAT EMPTOR!

***FOG** does not endorse any of the products advertised in this publication. **FOG** does not verify the accuracy of the claims in any of the ads. You should thoroughly investigate any offers before buying.*

*Please let **FOG** know of any difficulties encountered. Send all details, **in writing**, to the **FOG** office at P. O. Box 3474, Daly City, CA, 94015-0474, U.S.A.. We can't promise a solution, but we will try to help.*

*All articles contained in these pages are the views of the authors. Publication does not necessarily indicate endorsement by **FOG**, **FOGHORN**, or any of the officers.*

• • • • • • •

Expanding the Multiplan Spreadsheet Column Number

To any Osborne owner with an 80 column screen who uses the Multiplan spreadsheet, and has been frustrated as I have been that you could see only a few columns of your spreadsheet, I finally have a solution to the problem.

An inquiry to MicroSoft brought the response that Osborne modified the program to run on the Osborne 1, but Osborne Tech Support says they had nothing to do with it! No better results came from the ***FOGHORN***, so I guess there were a few of us who bought Multiplan despite having SuperCalc free with our systems.

At any rate, it can be fixed with four bytes changed, two in the .COM file and two in the MP.OVR file.

- * In the .COM, location 21F1, which has a value of 34h, (52d) should be changed to 50h (80d), and
- * Location 23AD, which has a value of 51h should be changed to 6Dh.

Both the above changes can be made with DDT, as follows:

```
You enter:     DDT MP.COM
Sys response:  2C80 0100
You enter:     S21F1⏎
Sys response:  21F1 34 50⏎ is entered
Sys response:  21F2 DA .⏎ is entered
You enter:     S23AD⏎
Sys response:  23AD 51 6D⏎ is entered
Sys response:  23AE 0E .⏎ is entered
You enter:     ^C to exit DDT
You enter:     SAVE 44 MP80.COM⏎
```

In the .OVR, locations 02 and 04 of the second sector have values of 34h (52d) and require changing to 50h (80d). This is done most easily (maybe the only way?) with DU. I am just becoming acquainted with a few of its uses! I highly recommend the STARTER.FOG disk of which it is one of the very useful programs.

I am assuming MP.OVR is on the same disk as DU-V87:

```
You enter:       DU-V87
DU's prompt is   :
You enter:       M to get a directory map of the disk.
You enter:       Gnn;+;CH03,50,00,50;W
```

The **G** says **Go** to the nn Group No. (the first number in front of the directory entry for MP.OVR in the directory map). The + moves to the second sector of that group. The **CH02** makes changes on three bytes starting at 2. (Not really changing 00. Just plugging 00 to 00. Easier to use only one **CH**.) The **W** then writes your changes from memory back into the overlay.

That's all there is to it. At the A> prompt, enter **MP80** (or whatever you chose to name the "Saved" file above), and you should see a beautiful seven (count 'em) column spreadsheet.

If you want to go "whole hog", you can have nine columns by substituting 66h where 50h was used above, and 86h in place of the 6Dh. Also, by using DU's search option, you can find the MP.OVR in the MP.COM file and then you can have two versions of Multiplan — MP80 and MP104 — each with its own appropriately-patched overlay.

Because I have only just today found the locations that needed these changes (after many hours of searching, over a span of two years), I can't guarantee 100 percent functionality of Multiplan. Everything I have tried so far has worked as it did before. The only noticeable difference is the stretching out of the command line where several command names have been abbreviated for the Osborne version. But they all work!

I hope this may benefit others as it has me.

Bob Keesling
Richmond, IN

* * * * * * *

Solving a Conflict Between The Enhancer and OZROM 1E

A brief tip: if you run WordStar that incorporates The Enhancer AND if you install the OZROM 1E, be sure to reinstall The Enhancer in order to set the cursor's blink rate to zero.

If you want the cursor to blink, use the OZROM to get it. Otherwise your WordStar is not enhanced at all; in fact it is detracted from.

The OZROM is a $50 alternative CPU from Micro Management, Inc., P.O. Box 165383, Irving, TX 75016. See the review in the January 1985 ***FOGHORN***.

The Enhancer is a $35 plus $3 shipping fix-up for WordStar that enables your printer to do its stuff. It's from Sudden! Products Group, 3421 M. Street NW Suite 1336A, Washington, DC 20007. See the review in the December 1984 ***FOGHORN***.

Now that I've gotten that mix-up solved (thanks to Micro Management), I'm extremely pleased with both additions to my O-1.

Stephen F. Wilder
New York, NY

* * * * * * *

WordStar's Directory Sorting Ability

I am running a highly modified computer with 1.6 megabyte (EACH) disk drives. I am allowed up to 256 files on each disk before the directory is full.

However, I find that once I exceed 64 files on each disk, WordStar is no longer able to sort the files in the displayed directory in alphabetical order and can only show the files in the order of creation.

Thus, I infer that a small patch is needed in WordStar to tell it how much space it should allocate within which to do a directory sort.

Does anybody know the patch?

Please print my name and address as I hope a member can answer me quickly as I am being driven mad reading directories which are not in alphabetical order.

I thank you for your magnificent publication which has taught me so very very much.

Long live user groups and user group magazines.

Charles Sandercock
P.O. Box 410
Hawthorne, Victoria
Australia, 3122

* * * * * * *

Connecting the O-1 to the Olympia Daisy Wheel Printer

I accomplished serial interface of my new Olympia RO daisy wheel printer to my O-1 blue case with the help from OCC and Olympia technical support departments. Here are the necessary details for the benefit of our fellow members.

Printer

- Price in New York at Executive Photo or 47th Street Photo discount stores: $289.
- Features: serial and parallel interfaces built in.
- Paper: to 13″ pin or friction feed.
- Plastic 100 character printwheel.
- Tractor feed standard.
- Print speed: 12cps.
- WordStar compatible except super/subscript or ribbon color change.

Pinouts and Cable

- Minimum four conductor signal cable.
- Two male connectors — rs232 db25 pin (crimp-type pins/connectors available from Inmac catalog part number 815).

O-1 pin #2 TXD connect to printer #2
O-1 pin #3 RXD connect to printer $3
O-1 pin #20 DTR connect to printer #4
O-1 pin #7 SIG.GROUND connect to printer $7

no other wires or jumpers are used.

Olympia RO Dip Switch Positions

```
SW 1 : 1,4,6,8 ON
SW 2 : 1,2,5   ON
SW 3 : 2       ON
SW 4 : 1,3,4   ON
```

WordStar Version 2.26 Installation

1st time? **N**
Choice? **B**
FILENAME? **WS.COM**
FILENAME? **WS.COM**
TERMINAL **U** (O-1)
OK? **Y**
PRINTER MENU **BACKSPACING TTY**
OK? **Y**
PROTOCOL? **NONE**
OK? **Y**
DRIVER? **CHOICE CPM LIST**
OK? **Y**
MODIFICATIONS COMPLETE? **Y**

WordStar SETUP with CP/M

Boot up CP/M system diskette in Drive A, place WS installed diskette in Drive B.

Run CP/M SETUP.COM:

Protocol: standard serial
Baud rate: 1200
Arrow keys: WordStar

Write this setup to Drive B.

This printer is an excellent value and well worth the trouble to build a custom serial cable. I have not tried the parallel interface, which I use with an Okidata 82A connected to the IEEE port with a custom cable from Inmac. (Sudden Products also sells this cable.)

Paul Stilling
Haworth, NJ

* * * * * * * *

Hooking Up a Printer to the Vixen

Reading Bruce M. Lane's letter in the October 1985 ***FOGHORN*** concerning the problem of hooking up a printer to his Vixen hit home. It reminded me of the problem I had getting Vixen to print on my Okidata 82A.

When I purchased my O-1 and printer, the dealer made up an interface cable for me. On examining the connector, I found the pins were wired straight to each other except pin 20 on the O-1 (printer busy) was wired to pin 11 on the Okidata 82.

When I got my Vixen, the manual said that pin 5 on the Vixen was the printer busy so I moved the wire from pin 20 to pin 5 and plugged it in.

Did it work? No way! Reading further, the owner's manual says the Vixen RS-232 port is a DCE port. That is the clue to the mystery!

The Okidata (and most other printers I imagine) are configured as DCE. The RS-232 port on the O-1 is a DTE port. When connecting a DCE port to a DTE port, a straight cable (one that is wired pin to pin) is used. When connecting a DTE to DTE or DCE to DCE, a "null" or reversed cable must be used. When you reverse a cable, pins 2 and 3 are reversed. Connecting pin 2 (pin 3 is not used) on the Vixen to pin 3 on the Okidata did the trick!

The Brother is the same 2/3 swap. Some additional wires need to be hooked up as the table below shows.

Here are the pin connections used to connect my Vixen to the Okidata 82A and Brother Centronic 50 (this should work for the 60 also):

Okidata		Vixen	Brother		Vixen
1	to	1	3	to	2
3	to	2	6	to	4
11	to	5	20	to	5
7	to	7	7	to	7
			8	to	20

My setup is 1200 baud (the Oki can handle this, and the Brother has an interface with a print buffer that accepts 1200 baud), 8 character bits, no parity bit and 1 stop bit.

I have discovered a lot of people who have O-1's and bought Vixens are having the same problems hooking up printers due to the RS-232 port being DCE configured. The reason for this was not explained in the manual. Any idea why the DCE configuration?

Pete Taylor
Anchorage, AK

[DCE on the Vixen is standard for a modem port; DTE on the O-1 is standard for a printer port (since the O-1 has a modem port for the Comm-Pac modem. Jack]

* * * * * * * *

Many Members Aren't Beaten by SIN and COS in SC2

[Many members sent in replies to Chris Berthaut's request for help: Beaten By SIN and COS in SC2 *which appeared in the December 1985* ***FOGHORN****. We can't print them all, so have chosen two for publication. But thanks go to Steve Cunningham from Devon, PA, John Steele (Bloomfield Hills, MI), Alan Chattaway (Vancouver, Canada), Charles Wolff Sr. (Miami, FL), Larr Crooks (Richmond, CA), Carl Warner (Pelham, AL), Pete LaPierre (Goose Creek, SC), Charlie James (Santa Fe, NM), David Holtzman (Saudi Arabia), Ben Hansen (San Leandro, CA), Klaus Becker (Tanzania), Alex Burr (Las Cruces, NM), and Roger Buel (San Jose, CA) for taking the time to send in an answer. Joanne]*

"After reading Chris' letter, I realized I may finally be able to help a fellow member of FOG.

It appears that Chris is using angles in degrees. Since SC uses radians, all angles must be converted prior to using the trig functions.

Radians = degrees times 1/(180/pi)
or
Radians = degrees times .0174533

You can let SC do the work by setting up a cell with the formula:

1/(180/pi)

and then multiplying all angles (in degrees) times this cell before applying the trig functions.

I hope this helps Chris, or anyone else who uses SC for trigonometry.

Richard Seriani
917 Fowler Ct.
Virginia Beach, VA 23456

P.S Feel free to publish my address if you think I may be able to help anyone with my limited knowledge of SC."

* * *

"I believe the problem is that Mr. Berthaut used his angle measurements in degrees whereas SuperCalc's trigonometric functions are based on angle measurements in radians. There are 2 Pi radians in a circle so one radian is equal to 57.29578 (rounded) degrees.

I set up a little spreadsheet using his angle numbers and formula and came up with a .0264814 whereas he was getting .0264915. I suspect the difference is that the input numbers in his letter are already rounded as compared to what his computer is using.

Next, I divided each of his angle numbers by 360/(2*PI) to convert his degrees to radians and repeated his formula. That time I got an answer of .6083494 as compared to his desired answer of .6031. Again, I suspect the discrepancy is due to rounding and that he will get the answers he wants by using angle measurements in radians."

M. W. Gormly
Cincinnati, OH

* * * * * * *

More "Blinking" Blinking Cursor

A piece I submitted in the June 1984 ***FOGHORN*** suggested a patch to correct an off screen cursor problem when using WSPATCH to make the cursor blink. The patch was a call to a screen positioning routine located at E7F6H.

The fix worked fine on my Osborne but when I tried it on an O-1 with an 80-column upgrade, the program crashed. I found that the routine I wanted to call was located at E807H instead of E7F6H. If you have had trouble making the patch work you might try E807H. It is still possible that there are variations of the BIOS where neither of the above locations would be correct.

Now that I have given you the address of a direct BIOS call to put into your programs, I would like to comment on the article in the June 1985 ***FOGHORN***, by Claude Ostyn, calling for software standards. I agree with his goals 100 percent.

However, programs like WordStar which are used on one computer with one printer aren't hurt by a direct BIOS call. This is true for programs like WSPATCH, which are great on the Osborne but would be of little value for other computers that have a blinking cursor as standard equipment. As Claude pointed out, the documentation file for these programs should indicate for which machines they were intended.

Pitfalls of BIOS Calls

"Listing 1" in Claude's article is a routine to echo the screen to the printer from inside a BASIC program. I have been using this routine for some time and used it in some BASIC programs which I put on Bulletin Boards. Since it calculates the BIOS at run time, it should work on any CP/M 2.2 system.

I have since found out that it doesn't work on a Morrow or a Kaypro belonging to a friend of mine. His version of MBASIC is 5.21, the same as mine, but is dated July instead of May. His version of BASIC sets up its own jump table and does not use the table provided in the BIOS!

If you have a Morrow and MBASIC dated July-81, the following routines will toggle the printer on and off from within BASIC.

```
100 REM PRINTER ECHO ON SUBROUTINE
200 POKE(16826).195
300 POKE(16827).60
400 POKE(16828.65
500 RETURN

600 REM PRINTER ECHO OFF SUBROUTINE
700 POKE(16826).225
800 POKE(16827).209
900 POKE(16828).193
```

This routine is very handy and I will continue to use it in programs written for my own use. In the future, anything I put on the Bulletin Boards will echo the screen some other way.

Phillip P. Pflager
Cupertino, CA

* * * * * * *

Scientific Modeling on Experimental Data

For those of you that do scientific or engineering modeling on experimental data, you may be interested in my article in the March 1985 ***Dr. Dobb's Journal.*** The article is about a technique called variable metric minimization, and C code is included. This code will also be available for downloading from FOG #1.

Joe Marasco
Belmont, CA

* * * * * * *

Make Life Easier and Implement Calendar Codes As Simple Numbers

Just as the English used to be plagued by their odd sizes of nuts and bolts, so America is being dragged down by ancient, strange methods of writing calendar codes.

Adam Green's book on ***Advanced dBASE II Users' Tips*** offers pages of complex routines for rearranging these primitive beasts.

So, who needs it?

As of now, I've totally rebelled and I'm now doing all dates in the mathematical (Asian) method: **YYMMDD**. It stops, once and for all, the time-wasting confusion between European and American methods (which comes first, month or day?), and allows me to hurtle through my data processing at a rate almost as fast as word processing. Here's how.

When setting up dates that have to be INDEXED (e.g., on invoicing or accounting programs), just enter dates as NUMERIC fields, such as 850921. Then INDEX the darned thing and forget it. All your inventory and accounts will be in order and — this is the best part — you don't have to type any of those stupid, dull, tedious substring routines over and over again. Never again!

Your customers will never complain (mine never have) because they find it's a great relief to be able to understand calendar dates — AT LAST!

In order to carry this off successfully, you have to be ruthless about it. I have gone so far as to reassemble all my rubber stamps into the new format and I refuse to deal with any peasant-variety software that won't give me the right to set mathematical dates.

There's three major obstacles to calendar liberation: Digital Research, Ashton-Tate, and the people who write accounting software. They're sure to be defeated in time, you must understand. Don't allow any of them to bully you — they're space cadets and they must not be treated with reverence.

Digital gets in there by embedding a bunged-up dating system into other folks' hardware (Trantor, for instance), and Ashton-Tate rigidifies it into dBASE II. Ashton-Tate allows a work-around with the SET DATE TO instruction, but it is an unnecessarily complicated and stupid implementation (is it a CHARACTER STRING or is it a NUMBER . . . can you figure it out?).

When all this stuff finally starts to give you a giant headache, you can tell all those over-paid pot-heads to take a flying jump, and then implement your dates as simple NUMBERS. Why make your life any more complicated than it needs to be, I ask you? Does it make any sense at all?

Reilly Burke
Canada

* * * * * * *

Teaching WordStar to Write in Spanish

I am very happy with my computer, but sometimes I feel that I am the only Spanish-speaking Osborne 1 owner in the world.

The main problem I found while teaching Spanish to the Osborne 1 was its inability to put accents over a letter on the screen, such as in "miro".

However, a backspacing command ^PH (control PH) on the screen makes an accent on the printer. The resulting word would be "mir'^Ho" on the screen, which makes the word very difficult to read, or "mir'o" if I hide the control character (which is not advisable while text processing).

The best solution I have found for writing in Spanish is to use accents (apostrophes) before the letter, and to add the control characters for backspacing only when the text is ready for printing. For this purpose I use the following:

^QA'↵'^P (doesn't show on the screen but it is there)
^H

After this, I have put the following in a programmable key; let's say ^8:

↵GUN ↵ ^QR
(note the space after the second ↵)

To clear the backspacing control characters in order to revise a text, simply invert the answers to the program's questions; i.e.:

^QA'^P^H ↵'

and then press the same programmable key as before — **^8**. After these operations, it could be necessary to reformat paragraphs with a ^B. I couldn't put this in a programmable key.

In spite of this solution, I would like real accents over my vowels on the screen. Does anybody have the solution?

By the way, the word-splitting feature of WordStar works quite well in Spanish, although it was not designed for that. Are there any patches available to make Spanish word-splitting perfect? This task should be easier than in English, since a few simple rules are followed for every given word.

Congratulations on your work. */Hasta pronto!*

Sergio Samoilovich
Rensselaer, NY

[Before anyone can answer the first question on putting accents over words, we must know what printer you have. Some printers have the capability to backspace, others do not. Editor]

* * * * * * *

On the Executive, Rembrandt, Media Master and Presto!

I have owned my Executive since July 1983, which was before Chapter 11.

In other words I paid $3295 Canadian ($2495 American plus duty plus Federal sales tax plus Canadian-U.S. exchange) for it. So it makes me angry when I hear someone complain about having paid a few hundred dollars more than the lowest price they saw after chapter 11 (which someone did in the ***FOGHORN*** — I don't remember which issue).

I have received very little support especially once Osborne went into chapter 11, yet I have no regrets, as I have received many hours of pleasure (and a few of aggravation) from my Exec. Overall I am quite pleased with the machine.

Anyway, the September 1985 ***FOGHORN***, Alan Chattaway wrote a scathing review of Rembrandt which I felt was unfair. I also owned OSBOARD, OSGRAPH, and OSBRIEF, and felt that given the constraints of the block graphics, they were excellent programs, so when I saw Rembrandt advertised, I took advantage of the offer to upgrade.

And I want to say that while it isn't going to turn my Exec into a Macintosh, I have been very pleased with the upgrade, especially the automatic line, circle and box drawing modes and the ability to display a disk directory.

Now I want to tell you about user support. When I received the program I discovered that the interface with WordStar did not work, so I called and explained my problem. The company said they were aware of the problem and were working on it. About a month later I got a disk with a new Daisy driver and it didn't work at all, but before I got around to calling them, they called me to see if the program worked OK.

I explained my problem and we agreed that it was probably a bad copy of the disk, so they said they would send me out a fresh copy right away.

Several weeks went by and no disk, so I phoned again. I was able to talk directly to Dave Grenewetzki and he explained that he was not sure what the problem was but suggested it might be because they had assembled the program on a Kaypro 10.

At any rate, he said he would give me my money back; I could keep the program and they would send me at no charge, the corrected driver when they got it fixed.

So while I still cannot interface to WordStar, I am satisfied with the program and have a good feeling about the service I have received.

I do agree with Alan that it would be nice if the output could be more like REPORTMAKER, but then, it is only two-thirds the price, and REPORTMAKER can't drive a daisy wheel printer — which is what I have.

Who knows, maybe they are working on an upgrade that will bring it up to the level of REPORTMAKER. If they do, they can count on me to upgrade to it.

I used the refund that they gave me for Rembrandt to purchase Media Master 3.00 and Presto! and so I thought someone out there might be interested in my impressions of these two programs.

Media Master is a very professional program that is easy to use; so easy in fact that I didn't even have to read the manual in order to use it. It does everything it says it does and I was unable to find any bugs in it.

Presto! however does have a few bugs, but is nonetheless an excellent program that delivered what it promised.

These are the bugs that I have found. The notepad when in insert mode will not insert tabs; and when doing a screen dump to a file that already exists, you are asked whether you want to `overwrite or append?` when, in fact, the only options are `overwrite or abort?`. The manual is correct on this point.

They do point out themselves that Presto! does not work correctly with Rembrandt (it causes some strange characters to appear on the screen in the drawing board and causes a malfunction in the current user position in the mode status display) but they state they are working on this.

None of the bugs are serious, and I am sure they will be speedily corrected. All in all, these are two great programs and you sure can't beat the price at $39.95.

I trust that this will prove helpful to someone out there. I sure have got my money's worth out of every issue of the ***FOGHORN***, and it has been because others were willing to share their wisdom and experience in its pages.

Thanks again and keep up the good work!

P. A. Pardoe
Dartmouth, Canada

* * * * * * *

ADVERTISEMENT

Write-Hand Man

"Almost a Sidekick for CP/M"
Ted Silveira—Computer Currents, Aug. 27, 1985

"WHM is ingenious and works as intended"
Jerry Pournelle, BYTE Magazine, Sept. 1985 (c) McGraw-Hill

Now available for CP/M 2.2, CP/M 3.0 and ZRDOS!

The convenience of *Sidekick* on your CP/M machine! Trigger **Write-Hand-Man** with a single keystroke and a window pops open to run desk accessories. Exit **Write-Hand-Man** and both the screen and program are restored. Use with any CP/M program and most any CP/M machine. Takes only 5K of memory.

FEATURES
- Notepad for quick notes
- Appointment calendar
- HEX calculator
- File and Directory viewer
- Quick access phonebook
- 14 digit decimal calculator

BONUS Add applications written by you or others! No other *"Sidekick"* lets you add applications. Dump screens, setup printers, communicate with other computers, display the date and time. Let your imagination run wild!

$49.95 (California residents add tax), shipping included. COD add $2. Sorry, no credit cards or purchase orders. 30 day guarantee. Formats: 8 inch IBM, Northstar and most 5 inch (please specify).

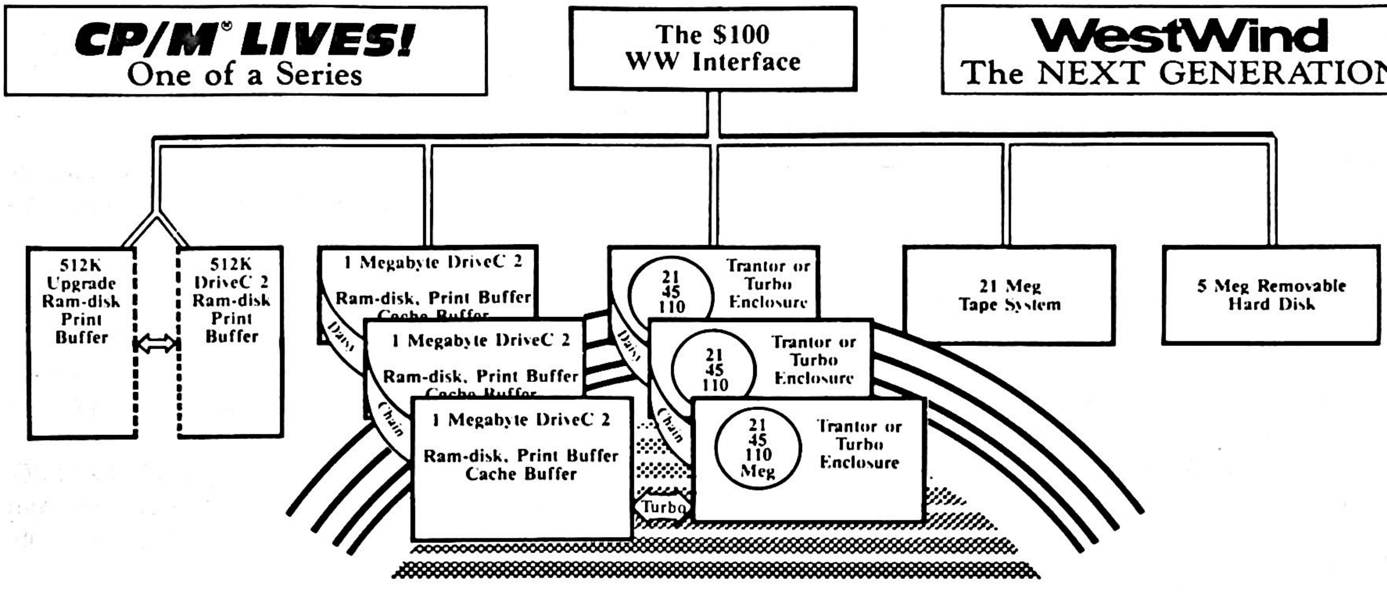
Write-Hand-Man only works with CP/M 2.2, ZRDOS and CP/M 3.0 (please specify). Simple terminal configuration required. Not available for TurboDOS. Compatible with keyboard extenders, hard disks, and other accessories.

Poor Person Software
3721 Starr King Circle
Palo Alto, CA 94306
415-493-3735

Trademarks: Write-Hand-Man — Poor Person Software, CP/M—Digital Research, *Sidekick*—Borland International

CP/M® LIVES!
One of a Series

WestWind
The NEXT GENERATION


The $100
WW Interface
512K Upgrade Ram-disk Print Buffer
512K DriveC 2 Ram-disk Print Buffer
1 Megabyte DriveC 2
Ram-disk, Print Buffer
Cache Buffer
Daisy
Chain
Trantor or Turbo Enclosure
21 45 110 Meg
Turbo
21 Meg Tape System
5 Meg Removable Hard Disk

CP/M® LIVES!

THE WestWind INTERFACE

If you're a CP/M user who's grappling with whether to keep your computer, invest in upgrades, or switch to MS-DOS, the WestWind Interface frees you to do what YOU want—*right now!*

The WW Interface for CP/M includes everything you need for attaching WestWind's Next Generation products to a CP/M computer, so it's easy to use our Hard Disks with your Osborne, or your KayPro, or your Morrow . . . or just about any Z80 system, by adding a WW Interface to your computer.

Best of all, our Dual Operating System feature lets you share our Trantor and Turbo (DriveC 2 Cache Buffered) Hard Disks between CP/M *AND* MS-DOS computers. Get a WW Interface for CP/M and a WW Interface for MS-DOS to connect our Hard Disk to either kind of computer and automatically access the right files.

And, when you're ready, use our Hard Disks completely for MS-DOS operation.

You see, we want you to get the utmost performance from your CP/M computer, to have the resources you need to make the transition to MS-DOS, and to know that an investment in a powerful enhancement for your CP/M computer *NOW* . . . will be just as valuable an investment for an MS-DOS computer *LATER!*

The WW Interface for CP/M includes—SuperSize SuperCalc2 (huge spreadsheet capacity when a DriveC 2 is added); SuperFile, the easy-to-use free-form text filing and retrieval system; our *NEW* Universal software that manages up to 3 Megabytes of DriveC 2, 3 Hard Disk subsystems, and Removable Hard Disk; MenuPac, Arkive, DiskMgr and Daisy-chaining capability to let your system grow with your needs; all necessary hardware and cables, and complete, illustrated documentation.

The WW Interface for MS-DOS inludes 16-bit SuperFile, Arkive, WW Loader software, Interface Card for any IBM-like card slot, cabling and documentation.

WestWind
C O M P U T E R

1690 65th Street, Emeryville, CA 94608, (415) 652-3222
Telex: 756329 (DRIVE C UD), WU EASYLINK 62533500

WW Interface	
WW Interface for CP/M	$ 100
WW Interface for MS-DOS	100
DriveC 2	
Ram-disk(s), Multiple-copy Print Buffer (requires WW Interface)	
512K DriveC	349
1 MEG DriveC 2	499
1 MEG Expansion Unit (to 3 MEG)	499
Upgrade 512K to 1 MEG	150
BackPac for Osborne	149
Trantor and Turbo Hard Disks	
(requires WW Interface)	
21 MEG Trantor Hard Disk	995
45 MEG Trantor Hard Disk	1895
110 MEG Trantor Hard Disk	2895
Add 2nd 21 MEG Hard Disk	695
Turbo with Cache Buffer	
Add 1 MEG DriveC 2 to Hard Disk	499
Add 2 MEG DriveC 2 to Hard Disk	998
Add 3 MEG DriveC 2 to Hard Disk	1497
Removable Disks	
(requires WW Interface)	
Add 5 MEG Removable to Hard Disk	1295
5 MEG Standalone Removable system	1595
5 MEG Cartridge	125
Tape	
Add 21 MEG Tape to Hard Disk	995
21 MEG Standalone Tape	1095
21 MEG Tape Cassette	35
Tape Cassette 3-pack	99
Web Network	
(requires WW Interface for each computer)	
Web Network	1295
10' Web cable	49
25' Web cable	59
50' Web cable	79

Send for our *FREE* Catalog and get your own **CP/M LIVES!** T-Shirt, just $9.95 (*FREE* with any $100 purchase!)

For Information or To Order:
CALL TOLL-FREE
US 800-526-6500, CA 800-831-3144

WestWind IBM-compatible Systems	
Complete, Hercules-compatible, Monitor, DOS 3.1, NewWord 2, SuperCalc2, SuperFile	
WW XT/640K/2 Floppies/Hi-Res Mono	$1395
WW XT/640K/1 Floppy/ 21 MEG/Mono	2095
WW XT/640K/1 Floppy/ 45 MEG/Mono	2895
WW XT/640K/1 Floppy/110 MEG/Mono	3895
WW AT/512K/1 Floppy/ 21 MEG/Mono	3895
WW AT/512K/1 Floppy/ 45 MEG/Mono	4495
WW AT/512K/1 Floppy/110 MEG/Mono	5495
Color/RGB system (replaces Mono)	400
16-bit Enhancements	
Acceler-8/16 (with WW XT)	75
Acceler-8/16 CP/M Emulator (V20)	99
XPlus 5151 Keyboard (with WW XT)	59
XPlus 5151 Keyboard	169
8087 for WW XT	149
80287 for WW AT	199
WW 300/1200 Internal Modem	299
Multi-X I/O-2 Multifunction (XT)	199
Multi-A I/O-2 Multifunction (AT)	199
WW HI-Res Mono Card/Parallel	199
WW Monochrome Monitor	199
WW Color Card/Parallel	169
WW Color RGB Monitor	429
Software	
Teach Yourself PC-DOS	39
SuperFile	145
UniForm and UniForm-PC	69
Media Master	39

Yes! ☐ Send me the new, *FREE* WestWind Catalog.
My computer is a______________

Yes! ☐ I want my very own CP/M LIVES! T-Shirt!
Size S M L XL (Circle one)

Name ____________________

Address ____________________

City __________ State____ Zip ______

Enclose $9.95 plus $2.00 Shipping and Handling for each T-shirt. CA residents add 6.5% Sales Tax.

Payment: ☐ Check ☐ Visa ☐ MasterCard

Card No. __________ Exp. Date____/____

WestWind Computer
1690 65th St., Emeryville, CA 94608

NOVICE NOTES

The first steps for those starting out.

Using PIP to Print

by David Haldeman

submitted by Jim Holmes

This comes directly from the pages of ***COGWheels***, (Cincinnati Osborne Group).

Ok, we all know PIP stands for Peripheral Interchange Program, right? But let's explore what that really means for those of you who think peripherals have something to do with vision to the side. (Sometimes this averted vision shows us more than staring at the monitor!)

Luckily, by the time most of us bought our computers, all the peripherals except maybe a printer were included in our suitcase portables. So we don't think of our computer as a CPU and a CRT and as a keyboard and a disk drive and a port this and a port that. They all seem to work and respond to each other when doing word processing or spreadsheets, so why worry about their individual functions?

The answer lies precisely at the time our peripheral vision notices that it would be a lot more fun to let the computer print out several files at once than to sit and wait for one to finish so we can enter the next.

There are many ways around this.

Both Perfect Writer and WordStar can do it with tricks by making files long chains (concatenations) of files. But two programs that come with all CP/M computers — SUBMIT and PIP — can do it while you watch the Olympics or go out for some Olympia.

Another program, SuperDir, found in the local Osborne Group's library of public domain software, will help automate the process, (FOG/UTL.005).

SuperDir has some nice features. If you add some extra letters after you ask for a directory, it can format the directory the way you like or even write it to a file.

Now why would you want a file of file names? Well, it just so happens that if you would like to print out a whole disk of files (text files, that is), you might be doing it the hard way:

Hit ^**P** (control-P) to toggle the printer on.
At the A> prompt, enter **TYPE B:FILENAME.EXT** ↩

This is crude and vulgar, and I don't want you to do it again, except in an emergency! You would have to do it over and over for each file on the disk.

A more elegant and controlled way is:

```
PIP LST:B:FILENAME>EXT[P55]
```

Aha! A Peripheral Vision! You see, you can use PIP not only to send files back and forth between disk drives, but also to the printer (and the modem and the CRT and the port this and the port that).

OK, LST stands for LIST stands for LIST DEVICE, which in days of old was the good old Line Printer or Teletype, (also known as PTR and TTY). These are merely different types of devices which the computer can send data to.

And what is [P55]? Well, WordStar fans, that puts 55 lines of printing on a page, just enough to give you some nice margins at top and bottom. Only trouble is, this just sends one file at a time, too. You're going to miss playing Softball tonight, too.

Solution

SUBMIT will execute a file of commands stored on disk. SuperDir will create a file of file names to be printed (called NAMES.SUB) if you say **SUPERDIR B:/F**.

WordStar will edit this file automatically to FIND and REPLACE all ^**N**'s (carriage returns at the ends of lines) with **[P55]^NPIP LST:=B:**. This can be done in less than a minute after some practice!

Then edit the first and last lines and delete any file lines which you do not wish to or cannot print out (.COM files).

Make sure there is no ↩ after the last file line. SUBMIT will then use this file to automatically send all the files to the printer while you go do something more useful than stare at electrons hitting phosphors on the back of glass.

At the A>, say:

```
SUBMIT NAMES
```

and walk away.

Have fun!

P.S. Steve Rindsberg would rename SUBMIT.COM to PRINT.COM and NAMES.SUB to FILES.SUB and then say **PRINT FILES** and walk away.

You can, too!

• • • • • • •

What is a Patch?

by Bob Thompson

Before we talk about patches, let's first talk about bugs. When programs are written, the programmer tries to anticipate all of the possible ways in which the program will be used as well as all of the possible paths that it can take to do what it does. Sometimes, because programmers are human, and can't think of everything, a program will do something unexpected. It may or may not be harmful, but usually unexpected behavior is not desirable. When a program behaves in such a way it is said to have a bug.

When someone locates the fault (bug) in the program he/she can go into the program itself and make changes byte by byte by hand. S/he might use the Dynamic Debugging Tool, DDT to do this, but, if the patch is very long, it is tedious and besides you need to know what you are doing so you don't ruin the program.

Often, however, the person will fix the error by writing a short piece of program to replace the part that has the bug.

This piece of program is often written over the other section and since it is "laid over" the original section, it is called a "patch".

Typical patches are the blinking cursor in WordStar, and the fix to dBASE II for the 80 column Osborne.

[Reprinted from the May 1985 ***TOGGLE****, newsletter of the Tacoma/Seattle Area Osborne User Groups.]*

* * * * * * *

Hardware, Software, Languages

by Paul O'Nolan

A computer is a general purpose machine. With the right software it can do all kinds of useful things from accounting to word processing and more besides. Without software it is worthless.

What is software? Well, the machine itself is hardware, that much is obvious. Software is what makes it tick — the programs containing the instructions which control the hardware.

Incidentally, there is no such thing as a "software program" — all programs are software. Sometimes programs are stored permanently in a chip. Such programs are often referred to as "firmware". The sign on message for example that you see when you turn on your computer is stored in this way.

Programs are written in a variety of what are misleadingly called "languages". They are in fact nothing more than different types of notation. None have any of the properties of a true language (e.g., what linguists call "reflexivity" — the ability to express ideas about a language using that language). All have a very rigid syntax, and all goes completely haywire if a word in a program is misspelled.

Broadly, computer languages can be divided into "low level" languages and "high level" languages, depending on how far removed they are from what is known as "machine language" — the actual instructions which the machine executes.

In the early days of programming — back when people bicycled around inside computers, and when Grace Hopper discovered a moth inside a malfunctioning computer, (from whence came the term "debugging" — people used to program in machine code.

This was not easy. First, computer instructions and data — the ingredients of all programs — were written in binary code: strings of 1's and 0's. Thus it was very easy to make a mistake by coding a one where there should have been a zero and vice versa. Second, it was very difficult to find such mistakes. Finally, it was incredibly tedious and inefficient.

To speed up program development "assembly language" was invented. Instead of programming in ones and zeros, programmers were able to substitute mnemonic codes for the instructions they wished to use.

A program called an "assembler" then assembled the program into the appropriate machine code. The first assemblers were fairly primitive, because they were written in machine code themselves. Later assemblers included error checking (e.g., for illegal instructions like typos etc.), and other sophisticated features. Assembly language is still used extensively, particularly in applications where speed of program execution is critical, e.g., process control.

Program development was still hard work, so "high level" languages were invented. The term "high level" has no connotation of difficulty, in fact rather the reverse. Undoubtedly, you'll have heard of many of the languages that come into this category:

FORTRAN — for FORmula TRANslation, mainly used for scientific "number crunching" (calculations).

COBOL — for COmmon Business Oriented Language. One of the early attempts to make programs read like English.

APL — for A Programming Language. A sophisticated interpreted language suitable for interactive computing. Developed by Ken Iverson.

PL/I — Programming Language One. IBM's attempt to write the ultimate programming language.

Pascal — A descendant of ALGOL (ALGOrithmic Language). A structured language developed by Nicklaus Wirth, and named after the mathematician.

BASIC — for Beginners All-purpose Symbolic Instruction Code. Developed for educational purposes at Dartmouth College.

ADA — The latest ultimate language. Named for Ada Lovelace, friend of Charles Babbage an early computer pioneer. Ada was the first programmer.

The list above is by no means exhaustive. Dozens, if not hundreds of computer languages came and, (most), went. Different languages are suited to different tasks, nevertheless programmers, (in general), are extremely partisan, and even chauvinistic, about the merits of their preferred languages. Even well known computer scientists have been known to utter such nonsense as "BASIC damages the mind". All brash claims about the comparative merits of different languages should be regarded skeptically.

The rationale for the development of high level languages included:

1. More efficient program development.
2. More reliable, easier to maintain programs.
3. Software portability. Assembly languages are machine specific. High level languages need not be.

Let's have a look at some code (computer instructions) in a few of the languages mentioned:

⇨

Machine code	Assembly language	COBOL	Pascal
10010101	MOV A,SAL	SUBTRACT TAX FROM SALARY	salary := salary
00101011	MOV B,TAX		- tax ;
10110110	SUB B		
10111010	STA SAL		
10110101			
11101110			
11010101			
10111001			
10110110			
10110111			
00101001			

The two languages on the left are considered low level, and those on the right, high level. What you are looking at is "source code".

Does the computer "understand" SUBTRACT TAX FROM SALARY ? No, certainly not. For a computer to execute an instruction like that it must first be translated into machine code. This single instruction will become many machine code instructions (as shown).

The translation from high level language to machine code is accomplished using a special program called a "compiler". Often a "linker" is required as well. A linker is a program which assigns addresses (actual memory locations) to all variables and labels used in a program. The linking process is analogous to dynamic in-text referencing provided by some word processing programs, so that, for example, when you label a reference and subsequently refer to it as "(Page X)", the X is translated into the appropriate value.

The "compile and link" process is shown below.

```
CURSOR.MAC                    Source code
    :                              :
    : <--  M80                     : <-- compiler
    :                              :
    V                              V
CURSOR.REL                    Object code
    :                              :
    : <--  L80                     : <-- linker
    :                              :
    V                              V
CURSOR.COM                    Machine code
                            (executable code)
```

An editor, such as WordStar is used to edit the source code. The process shown above depends on a successful compilation (no errors in the source code).

An alternative to a compiler is an "interpreter". Whereas a compiler translates source code only once, an interpreter retranslates each line of source code every time the program is executed.

MBASIC is such an interpreter. Interpreted programs are much slower in execution than compiled programs, but, since many interpreters include integral editors and syntax checkers, program development is often much quicker. Intermediate between these two approaches is CBASIC which uses a compiler to generate an intermediate file which is subsequently interpreted.

*[Reproduced from the **Oracle of ZEUS**, the newsletter of the independent Zorba Equipment Users' Society.]*

• • • • • • •

The Value of User Groups: An MBASIC Problem Easily Solved

by Harry M. Hawkins

For sometime I have been looking for a way to save MBASIC programs so that I could then bring them up with WordStar, or in my case NewWord, to easily change format and deliver a pleasing printout.

My Executive manuals did not help, in fact, the only reference to this indicated that it was more difficult to do than to strip a WordStar file so that it could be used in MBASIC.

After I finally found a solution, I then did find a reference to how this problem could be solved on page 349, Volume 2 of the Executive documentation.

A colleague who is an Apple expert suggested that a file be opened, then the program LISTed and it would be saved to the disk file. I tried this but it did not work (it works on an Apple).

Finally, the same colleague happened to mention this problem to a member of an Apple Users' Group whose meetings he attends and the answer given was extremely simple.

All that need be done is when the BASIC program is saved, a **comma** and an **A** be appended such as follows:

SAVE "TEST",A

I tried this and it worked beautifully! I couldn't believe the answer was so simple. Apparently, the **A** saves the file as an ASCII file so that it can easily be read by a word processor. BASIC files are saved as binary in order to save disk space and so cannot be displayed as a text (or ASCII) file can.

I have not seen this sort of command mentioned in BASIC books and since others out there may want to do the same thing, I thought it might be useful for others.

My experience also points out the fact that if one attends user group meetings, he/she is more likely to find someone who has the answer to whatever is the pressing problem — a lesson for us all.

• • • • • • •

Looking for a Local Group?

For the name(s) of Affiliated Member Organization(s) or other group(s) nearest you, send a stamped, self-addressed envelope to:

FOG
P. O. Box 3474
Daly City, CA 94015-0474
United States of America

Join the Fun and Learn More!!

• • • • • • •

CompuMagic's™ new UTILITY PACKAGE

FOR ALL CP/M COMPUTERS

ALL OF THIS FOR ONLY $45 with a 30-day money-back guarantee

CMCOPY, COMPARE, DoubleSpace, ERASE, RENAME, SORT, WordCount
Seven tools with a common command interface: command line and prompt modes; multiple commands on a line; what-if, query & overwrite modes; renaming of new files with wildcards; input redirections; changing source and destination user areas; concatenation; I/O to files and devices; etc.

MDIR & MDIRS, DISKDIF, DIRSPACE & UDIR, DIRBAK
Directory programs that tell you what you need to know: directory listings with or without size; multiple file specifications, output redirection; sort files by name or type. What's on one disk that's not on another? How much space is left in a disk directory? What files are in ALL user areas? List all *.BAK files.

CMAUTO
Create programs to run other programs: to eliminate repetitive typing; to create short named programs for long commands. Specify command line, run disk and user area. Full-screen menu allows easy entering or editing.

A.COM
Corrects typos! Converts A;MBASIC to A:MBASIC, etc.

MINIERA
Does wild-card erases from within WordStar and takes only 1k of disk space.

R/O & R/W
Who needs 6k of STAT for R/O & R/W status changing? These are 1k each.

SCREEN (SCREEN ECHO TO A FILE)
For program developers and the curious, captures everything going to the screen, even through BIOS, and writes a copy to a file. (Works with MBASIC too). Better than ^P — you can't edit a printout or merge it into documentation.

TYPIT
Turn your $3000 computer into a $200 typewriter. Great for envelopes & forms. Allows I/O redirection; use it to create short .SUB files.

The CP/M version of the package contains all 20 programs (plus installation programs) on a 8" SSSD or 5" Osborne DD (Others available, ask) plus complete documentation for only $45. At just $2.25/program, you can't afford to do it yourself!

OSBORNE SPECIAL $65: Osborne 1 & EXEC Special Versions with the legendary MANYKEY

30 DAY MONEY-BACK GUARANTEE: If these programs don't make your computer easier to use, return the package to us with your comments for a full refund.

NEVER COPY-PROTECTED: CompuMagic programs are never copy-protected, and our license allows you to use them on all computers you own for which they're suitable.

TO ORDER: Send Check or MO or call with your VISA/MC or COD order. No charge for UPS ground shipping. Add $2 for UPS COD; $5 for foreign shipping/handling. (MD res. 5% tax too, please)

Please Note New Address and Phone!!

CompuMagic, Inc.™
P.O. Box 437
Severn, MD 21144
(301) 969-8068

ARTICLES

Track Your Stock with MBASIC

by Harry B. Pitcher

The following is a simple BASIC program for tracking relative stock performance versus its buy price. The screen dump routine (1000+) is added for this article, as I usually use this program without the screen dump and view it on the screen.

The horizontal rows indicate the relative weekly price versus the buy price. The top row, when showing a "1", indicates that the price is not 150 per cent of the buy price. A "1" in the bottom row indicates that the top price is at least 50 per cent of the buy price. The rows from top to bottom are incremented at five percent of the buy price. Thus, the middle row represents the relative stock buy price.

By scanning the display for the highest position of the "1's", it is possible to get a feel for the stock swing.

You can store and display a maximum of 26 weekly entries in this fashion.

```
10 REM ENTER THE NET STOCK BUY PRICE IN ,LINE 40, BP.
20 INPUT ``CURRENT WEEK'';W
30 PRINT ``STOCK-XYZ''
40 BP=29
50 K=1.5
60 FOR I= 1 TO W
70 READ P
80 REM ENTER THE WEEKLY STOCK PRICES FOR THIS STOCK IN DATA;
   LINE 90
90 DATA 27,31,27,35,36,40,37,35,34,38,20,22,44,42,41,45,48;
   49,46,44,42,41,40,33,32,34
100 PRINT X;
110 NEXT I
130 K=K-.05
140 RESTORE
150 PRINT
160 IF K>.5 GOTO 60 ELSE GOTO 170   'THIS BRANCHES TO THE PRINT;
    ROUTINE
170 GOSUB 1000
180 END
1000 REM********SCREEN DUMP ROUTINE********
1010 A=&HF000:B=128:D=1
1020 C=PEEK(A):IF C+160 THEN GOTO 1040
1030 A=A+B:GOTO 1020
1040 A=A+B:D=D+1
1050 IF A>&HFF80 THEN A=&HF000
1060 IF D>8 THEN GOTO 1070 ELSE 1040
1070 FOR E=A TO A+4096 STEP 128:IF E>HFF80 THEN E=&HF000
1080 FOR F=0 TO 65
1090 G=PEEK(E+F):IF G=160 THEN GOTO 1150
1100 IG G>32 THEN G=G+64
1110 IF G>127 AND G<192 THEN G=G+32
1120 LPRINT CHR$(15)CHR$(G);
1130 NEXT F
1140 NEXT E
1150 RETURN

OK
RUN
CURRENT WEEK? 26
STOCK-XYZ

0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1 1 1 1 0 0
0 0 0 0 0 0 0 0 0 0 0 0 1 0 0 1 1 1 1 1 0 0
0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1
0 0 0 0 0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1
0 0 0 0 0 1 0 0 0 0 0 0 1 1 1 1 1 1 1 1 1 1
0 0 0 0 0 1 1 0 0 1 0 0 1 1 1 1 1 1 1 1 1 1
0 0 0 1 1 1 1 1 0 1 0 0 1 1 1 1 1 1 1 1 1 1
0 0 0 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1
0 0 0 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1
0 1 0 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1
0 1 0 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1
0 1 0 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 0 0 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 0 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
```

• • • • • • •

Setting Up Your Printer from the Keyboard

by Bob Thomson

You have read elsewhere that you can toggle your printer on and off from the CP/M A> prompt using **^P** (control P). With this information you may be able to set your dot matrix printer to any print font (or print enhancement) directly from the keyboard. My C. Itoh ProWriter, for example, uses Escape sequences to change type fonts as follows:

10 pitch Pica	<**ESC**>**N**
12 pitch Elite	<**ESC**>**E**
12 pitch Proportional	<**ESC**>**P**
16.7 pitch Compressed	<**ESC**>**Q**

I can change to compressed type by typing **^P** to toggle the printer ON and then typing <**ESC**>**Q**⏎. My printer will respond by printing the command line and a question mark in compressed print and the printer is now "set" to print everything sent to it in the compressed font until it is turned off or is sent another command. To change back to 10 pitch, I simply type <**ESC**>**N**↵.

I have been told by some members that their printers will not respond to keyboard commands of this type. You should experiment with yours. If you can't understand your printer manual (a common ailment) bring it to a user group meeting and ask another member to help.

[Reprinted from the May 1985 ***TOGGLE****, newsletter of the Tacoma/Seattle Area Osborne User Groups.]*

[One problem you might run into is that your keyboard may not be able to send the command needed. This is the problem Osborne 1 owners discover when they try to send ^] (control right bracket) to their Okidata 92. We have had several articles about this in the past. David]

• • • • • • •

Want Back Issues?

Please refer to **FOG MEMBER MERCHANDISE** in this issue for information on obtaining back issue copies of ***FOGHORN***. We maintain an inventory of back issues because the information contained in them can save you hours of aggravation!

• • • • • • •

ADVERTISEMENT

SURVIVOR'S LIFE-LINE™
(303) 934-1407

With fifteen minutes of consulting by phone I've solved problems that people had worked on for days. Their greatest cost by far was for the days they could have saved by calling me sooner.

WOULD YOU PAY $20.00 TO SAVE THREE DAYS WORK?

Since 1981 I've specialized in Osborne solutions. Let me share them with you. I also solve problems and teach classes in dBase II, SuperCalc, WordStar, MBasic, and more. How can I help you?

For more information or a trial subscription to our newsletter, the Survivor's Guide, please call (303) 934-1407.

The Survivor's Guide is available in the U.S. for $24.00 per year (first class postage) or $18.00 per year (bulk rate). Foreign subscriptions are $24.00 per year. We'll even include one back issue for free if you sign up by phone with your VISA, AMERICAN EXPRESS, OR MASTER CARD. All back issues are currently available at $4.00 each. If you're unhappy with Survivor's Guide for any reason, we'll refund your money.

John Gaudio is an electrical engineer holding two U.S. Patents on computer systems. He's been a consultant to Osborne Computer Corporation and continues to write for their magazine, the Portable Companion, Foghorn, Dog Bytes, and his own newsletter, the Survivor's Guide. Since 1981 he's been helping people get more from their Osborne Computers.

J. Gaudio Company, Box 27826, Denver, CO 80227

TELECOMMUNICATIONS

Communications between computers.

The Break Signal

by Jim Enright

You may have run across references to a "Break Signal" in literature on serial communications and been as confused as I have about how it differed from other data on your computer's RS-232 or modem output. If you then referred to a table of ASCII codes, you would find none called "Break".

A "Break" is transmitted or received by your computer on the same pair of wires as any ASCII character. As illustrated below, a normal character begins in the mark state.

First a start bit occurs with the signal switching to the space state. The start bit lasts longer than the data bits. It is followed by a number of data bits. Finally, a stop bit(s) occurs leaving the signal in the mark state awaiting the next character. The stop is also wider than the data bits. Conversely, the break signal switches from the mark state to the space state and stays there for a period of time longer than a normal character. In other words, it is not properly framed by start and stop bits.

Systems requiring break commands require breaks of various lengths. It is possible that the break generated by your software will be too short for some systems.

The ACIA (UART) chip in the Osborne 1 computer is capable of generating a break signal and indeed one is generated by AmCall and is transmitted from the modem port. The break signal is trapped by the Osborne hardware and is not allowed to be sent from the RS-232 port. This trap can be prevented with a minor hardware modification. (See the "DOC" file in the library for OSMDM740.) A received break can be detected by the ACIA in the O-1 as a framing error.

Normal Character

```
           START   ----- DATA BITS ------------    STOP
SPACE      ------------------------------------     -----
           ¦     ¦ 1 ¦ 2 ¦ 3 ¦ 4 ¦ 5 ¦ 6 ¦ 7 ¦ 8 ¦      ¦
           ¦     ¦   ¦   ¦   ¦   ¦   ¦   ¦   ¦   ¦      ¦
MARK  -----¦     ¦--------------------------------------
                  -----> TIME
```

BREAK Signal

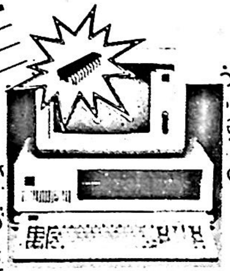
```
SPACE      --------------------) (--------------------
           ¦                                          ¦
           ¦                                          ¦
MARK  -----¦                                          ¦----
```

[Reprinted from the April 1985 ***TOGGLE****, newsletter of the Tacoma/Seattle Area Osborne User Groups.]*

• • • • • • •

PUT A CP/M COMPUTER IN YOUR PC!

RUN/CPM™



ONLY $99.95
INCLUDING HARDWARE!
Plus over 20 CP/M80 programs!

And run 1,000's of CP/M programs
up to 30% faster, directly from your CP/M disks!

How does it work?
RUN/CPM virtually transforms your PC into any of the most popular CP/M systems. A simple replacement of your PC's 8088/86 microprocessor with our N.E.C. V-20/30 microprocessor gives your computer the ability to run both 8 bit CP/M and 16 bit MS-DOS programs. RUN/CPM will transform your PC's floppy drives into CP/M drives able to directly read, write, and format over 100 CP/M disks! Terminal emulation supporting dozens of the most popular terminals completes the transformation of your PC into a CP/M system.

Performance?
Depending on the application, many of your CP/M programs will run up to 30% faster on your PC. Other features include; ability to run CP/M programs in color, logical and physical drive assignments, run CP/M or MS-DOS programs from the same prompt. RUN/CPM is the solution to running CP/M software on PC's.

RUN/CPM™ Plus

Turbocharge your CP/M Applications!

For programmers, developers, and advanced enthusiasts.

Features

- Utilization of 1 full mega byte address space!
- Floating point math capability with 8087
- Direct access to DOS functions
- Direct access to PC I/O ports
- Direct access to PC BIOS calls

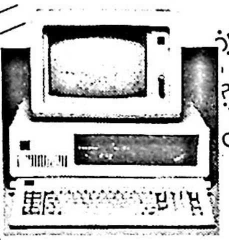
Plus over 20 CP/M80 programs!

ONLY $199.95
INCLUDING HARDWARE!

Plus over 20 CP/M80 programs!

ADD CP/M DISK COMPATIBILITY TO YOUR PC!

READ/CPM™



ONLY $49.95

Now your IBM PC or compatible can directly read, write, and format over 100 of the most popular CP/M disks.

How does it work?
READ/CPM virtually transforms your PC's floppy disk drives into any one of more than 100 CP/M drives. Simply run the READ/CPM program, and choose the CP/M formats you want your PC's floppy disk drives to emulate. Now you can access data from your CP/M disks using standard DOS commands like COPY, DIR, TYPE etc. No need for modems or additional hardware, and READ/CPM supports more formats than any other similar product. READ/CPM is the ideal solution to the incompatibility problem.

RUN INTEL SOFTWARE ON YOUR PC!

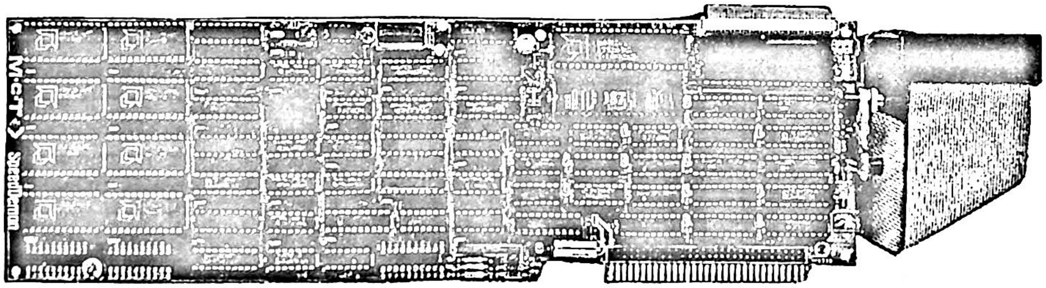
Attention Programmers and Developers!

Our MICRUN 80, and MICRUN 86 Universal Development Interfaces will allow you to run your 8 bit or 16 bit Intel development languages on your IBM PC or MS-DOS compatible! Your PC will become a high performance MDS, and save you time and money. Call for more information.

PC Speed Up 10 MHZ!

Now Your IBM PC, XT, Or Compatible Can Run MS-DOS, And CP/M Programs Virtually As Fast As An AT!

CALL FOR PRICE!



CALL FOR PRICE!

- Compatible with virtually all sofware:
  - — Spread sheets
  - — Word processors
  - — Data base managers
  - — High level languages
  - — Applications programs
  - — CAD/CAM
  - — Engineering
  - — Scientific Applications
- Compatible with virtually all accessory cards:
  - — Extended memory
  - — Printer cards
  - — Serial cards
  - — Hard disk controllers
  - — Floppy disk controllers
- No preboot software, virtually transparent to user.

To order
send check or money
order (U.S. funds)
add $5.00 shipping/handling.

VISA

ORDERS ONLY
1-800-637-7226

Trademarks: CP/M (Digital Research Inc.) IBM (IBM Corp.) RUN/CPM (Micro Interfaces Corp.) MS DOS (Microsoft Inc.) INTEL (Intel Corp.)

Micro Interfaces Corporation
6824 N.W. 169th Street, Miami, Florida 33015
(305) 823-8088
Telex 5106004680 MICRO INTER CO
Ask About Our Intel Operating System Interfaces

OEM, VAR, Dealers, Inquiries Invited

BOOK REVIEWS

The Programmer's Toolbox

by James Alvey

The Programmer's Toolbox
By Jack Emmerichs
Published by Dilithium Press
$19.95

The Programmer's Toolbox presents a series of programs to create a preprocessor for BASIC programs. The BASIC preprocessor presented in this book allows you to write programs using labels instead of line numbers and make use of library subroutines. I haven't attempted to enter the programs presented so I can only say that the programs look like they will function as claimed.

What I like about the book is the concise and readable description of how to use machine language subroutines in BASIC programs. Most books on MBASIC mention that you can use machine language subroutines in programs but that "the topic is beyond the scope of that particular book". The MicroSoft documentation for MBASIC assumes a prior knowledge of machine language many users do not have.

If you're looking for a description of how to use machine language subroutines in a BASIC program check out this book.

The book also does a good job of presenting information on sorting routines and command files. If you program in BASIC you will probably learn something about BASIC by reading this book. If all you have is interpreted BASIC you probably won't want to use all the programs presented in the book (unless you are a very patient person).

The BASIC compiler will speed things up as Mr. Emmerichs points out. The information presented in the book is thorough and very easy to follow. You will have to judge for yourself if the programs presented will be of use to you.

• • • • • • •

Have a Donation?

FOG is a non-profit, tax-exempt corporation. All donations qualify for tax deductions. Find a home for that old hardware, the books or magazines you no longer need. Manuals are especially appreciated because they make it possible to help other users.

If you have time available and can come to the office, we have lots of jobs waiting. There is software to test, documentation to write, filing, questions to answer, disks to copy, and much more!

• • • • • • •

FLASHPRINT

WordStar Printer Problems Solved

Were you influenced in choice of printers because the dealer could make it produce lovely designs? Does your printer have built-in math symbols which you have never been able to use? Does the printer manual list five type styles but you have only been able to patch WordStar to use only three or four of them? To quote Alan Chattaway in his review (July, 1985 FOGHORN): "If you need any kind of enhancement to WordStar, this is the one." He also said "... but the ads don't do [FLASHPRINT!!] justice."

Here are a few special characters which have been designed for the Epson and several other printers: →, ←, ↑, ↓, 🚗, ©, 🚂, Σ Ω, ⊕, ↑, ●, ☺

You can print compressed, proportional, expanded, elite, *italics*, pica, and any combination your printer allows. With FLASHPRINT!! you will also have full control over ^{superscripts} and $_{subscripts}$ as well as true underline and control of color ribbons!

With **FLASHPRINT!!** you can print anything your printer is capable of producing. Enter four characters into the beginning of your file and produce a letterhead created from graphic characters. Emphasize your thoughts by mixing bold, elite, condensed, expanded, and proportional characters in a single sentence. Underscore (including the blanks between words) or underline your text while inserting boats, cars, and Greek symbols into your letter. **FLASHPRINT!!** makes it possible to do all of the characters and symbols shown above with only one or two keystrokes.

There's more. With **FLASHPRINT!!** you can design virtually unlimited special function keys. **FLASHPRINT!!** is supplied with complete instructions on how to design your own characters and install them into you customized WordStar — for any printer.

FLASHPRINT!! requires no modification to WordStar. Simply copy the **FLASHPRINT!!** file to your WordStar disk and run it. It comes installed for the most popular dot matrix printers.

Any special requirements? Not really. You need a printer and WordStar (versions 2.26, 3.0, or 3.3). **FLASHPRINT!!** is available in all of the popular disk formats including the 8" SSSD IBM format. Please be sure to specify required disk format and operating system. Guaranteed to work or money back.

CP/M version: $49.95
MS-DOS version: $69.95

For either version, add $5.00 shipping and handling
California residents MUST add 6.5% sales tax

FLASHLITE SOFTWARE
P. O. Box 2179 * Daly City, CA 94017 * (415) 994-8282

HARDWARE REVIEWS

The Juki 2200
Daisy Wheel Typewriter

by Richard A. Cohen, CPA

Well, I finally broke down. After 18 months with only an Epson MX-80 with Graftrax, I decided to get a letter quality printer. Actually, I had always wanted one, but after shelling out over $600 for the dot matrix printer, the coffers were a little bare.

I was thumbing through the Protecto catalog where I spied a new printer from Juki, the 2100, with the unbelievable price of only $249. And for an extra $50, they had a printer with a keyboard (usually called a typewriter by the uninitiated).

Aha, I said, finally a daisy wheel not priced in the stratosphere. So I called Protecto's 800 number, and placed my order for the typewriter, which, to my utter joy and amazement had just been reduced to the original price of the 2100. The 2100 was reduced to the incredible price of $199.

I received my printer within seven days. Another mail order first.

It used the same cable as the Epson which a JOG (Jersey Osborne Group) member kludged together for me and I was off and running as soon as I had read the 44-page (but only 8.5" x 5.5") operating instructions.

I learned, for the first time I might add, (it was not in the advertisement in the catalog), that this typewriter was also a lift off-tape correcting typewriter. Better and better.

Protecto has five daisy wheels in the catalog for about $9 each for elite and italic and such. The machine comes with a 10 point Pica 100 character printwheel. I am not sure, but I think the printwheels are fairly standard. I know the ribbon is standard, because I got six xerox ribbons which fit fine.

You may have noticed by now that I have yet to talk about the speed of this printer. Well, for $250 what can you expect? The advertised speed is about 12 characters per second or about 120 words per minute. My guess is that it is closer to 10 cps but I need quality, not speed in my correspondence and reports.

I did not get a sheet feeder with this printer as none was offered. However, I would guess that the standard Juki sheet feeder might work.

I did have a service problem after about two weeks. The printer all of a sudden started to print garbage. I took it to the Juki offices here in New Jersey, and felt really foolish when the repairman showed me that the only trouble was that the correction tape had somehow gotten caught in the printwheel.

As a typewriter, this is a great printer. Meaning that the typewriter goes much slower than I can type, and I can only go about 60 words per minute. The reason seems to be shifting into upper case. This is very disconcerting, waiting for the printer to catch up, but, since I have only used it as a typewriter twice in the last month, and I don't mind using window envelopes, I have had very little difficulty with this feature.

In summary, this is a dynamite product which is hard to beat for price and quality. And I even forgot to mention the 2K buffer.

[Protecto is located at 22292 North Pepper Rd., Barrington, IL 60010; ph: (312) 382-5244. Joanne]

* * * * * * *

The Toshiba 1340
Dot Matrix Printer

by Bill Rothstein

After I printed out a 900-page manuscript on my Smith-Corona TP-1 printer at 15 double-spaced pages an hour, I decided I needed something faster.

I decided on a 24-pin print head dot matrix printer, of which I found two under $1000: the Toshiba 1340 and the Star SB-10. I never found a dealer who carried the Star, but the Toshiba had the best dot matrix print quality I have ever seen and printed letter quality at 50cps single pass. It also received a pretty good review in ***InfoWorld***. I bought the Toshiba with a parallel interface for $600 ($800 list price).

At letter quality, the printer turns out about 70 double-spaced pages an hour, close to its rated speed. The print quality is excellent — almost daisy wheel.

The draft quality type is the fastest and best of any of that type that I have seen. The dip switch is set with the letter quality as the default, but it can be easily changed to the draft quality.

The printer has a real platen and tractor feed mechanism, so that you can feed both fanfold and single sheets of paper. The single sheets are cumbersome to feed, because you have to remove the fanfold paper, move the tractors to the sides, then load the paper, which is often difficult to feed through.

The tractor does not engage the paper being fed out, so that you do not waste a piece of paper every time you print something — a very useful feature. The printer is designed to stop after the last character typed and will not feed out the sheet of paper; which is a nuisance.

I have had no problems with wavy or angled print or with the tractor.

Although the printer is supposed to print 10 and 12cpi, the letter quality 12cpi takes three passes and the characters overlap, making that font useless for real printing. (I consider Toshiba's advertising letter quality 12cpi to an outright deception.)

I patched the standard cpi in WordStar to 11 cpi, which is almost as good. You can also use .CW 11 at the beginning of a manuscript and get the same result. The Toshiba prints compressed and elongated, but not italics.

The Toshiba is Sprint 5-compatible, which is supported by WordStar 2.26 and 3.3. Subscripts and superscripts come out fine, although they are full-sized letters. Double-strike and boldface are very slow in the draft mode and unnecessary in the letter quality mode. High speed, compressed, and elongated type have to be patched.

The underlining with **^PS** (control PS) is very, very slow. I patched Toshiba's non-Sprint five underlining escape codes, which are much faster, but they can only be used for underlining lines, not groups of words.

There are other equally strange control codes, obviously designed by people who speak Japanese and know little English. The manual does not explain any print functions, except to provide a table of escape codes. It has a wonderful description of how to plug the printer in (with photos of the plugs) and load paper, but doesn't say a word about getting it to do anything. This is one of the worst features of the printer.

The printer does not like to change type fonts during a manuscript, because it changes the left margin drastically when it does. A Toshiba technical support person claimed that this was because the 1340 does not get along very well with WordStar.

I have found no overall solution. The key factor seems to be the placement of the control character that changes fonts. Sometimes it should be placed after the last letter typed in the font, other times it should be placed as the first character on the next line. Sometimes it is also necessary to use a **.POn** at the beginning of the file. Most of the time it is not worth the trouble to find out the solution.

The printer has graphics capability, but the manual says that extensive use overheats the print head. I have not tested it.

I can recommend the Toshiba 1340 to someone who wants outstanding print quality at excellent speeds, is willing and able to do patching and experimenting, can do without some functions, and can tolerate some of the problems.

Buy only the parallel interface. To install the serial interface, you have to disassemble the entire machine, including the PC board.

To my mind, the Toshiba 1340 prints superb characters but has many serious faults, especially the bizarre operation of some of the control codes, the very poor manual, and the inability to feed out a piece of paper after it is through printing.

• • • • • • •

The Kaypro 2000 — A Great Little Computer, But No Company Support

by Bernard Jensen

My Kaypro is not effective without my Osborne 1!

I bought the O-1 because I wanted a portable computer I could take with me on road trips. I carried my Osborne on many such trips, by car and by large and small commercial airlines, and used it happily in the motel to write reports and keep track of my expenses (and play a game of chess or Zork, too!) My Osborne served as an admirable base machine which I used for many purposes, including running a 500-name mailing list.

As you'll see, my Osborne continues to be indispensable to me.

Even though I no longer travel, I continued to want a computer that is very portable, and I began casting covetous eyes on the Data General 1 and the Osborne 3. But I found the price tag of the DG1 to be too steep, and I couldn't find the O-3. I was in Los Angeles the weekend the Kaypro 2000 was introduced, and I knew it was the machine I would have next.

I based my decision on several factors, including the price and the reputation of the Kaypro Corporation. And I bought the machine knowing it had only one 3-1/2" disk drive and only an RS-232 port.

On the day I put down my $2000 (probably how the name was derived!), I was given a preliminary price list which included a disk adapter, which would allow connecting an external 5-1/4" disk drive and a driving a parallel printer. I figured Kaypro would have the parts available by the time I had learned MS-DOS enough to need to add the additional capability.

Well, I learned to use the capabilities of the machine to the extent I need, but Kaypro has yet to make the parts available. At my last contact with my dealer, Kaypro was no longer even suggesting parts might be available, and the company's president wasn't returning call to the dealer!

The Kaypro 2000 weighs about 12 pounds, is about three inches thick and about the size of a notebook. It normally comes with 256K RAM installed but as part of an inaugural special, mine came with 512K RAM. I've since had that increased to 768K, allowing plenty of room for a RAM-disk and the "desk top" software.

The display is a 25 row by 80 column liquid crystal screen which pivots near the back of the base of the machine with two latching positions. The display contrast can be infinitely varied through the use of a combination of keyboard commands. The display is easily read; however finding the "right" position for the screen when the light is bright can be a chore. The keyboard may be removed from the base of the machine, to which it remains connected by a coiled cord, and aids in finding the right viewing angle for the display, while retaining a comfortable position for the hands on the keyboard.

The bundled software included WordStar 3.31, ReportStar, GWBASIC, and CalcStar. CalcStar does not come close to comparing with SuperCalc2 and is no longer being included in the bundle — it has been replaced with Traveling Software's Expense Manager. WordStar has been upgraded to include CorrectStar, a useful addition as it not only finds spelling errors, but also makes suggestions for changes. GWBASIC is essentially MBASIC from the Osborne, but with the addition of high resolution graphics and superior print positioning commands. The telecommunications program now included is called Mite. It appears to be a very good program, and completely compatible with my Hayes SmartModem, by changing menu-driven variables or through direct command. The "pop-up" software is called Polywindows, and provides access to a calendar, a calculator, a hex-dec-bin-oct converter, an ad-

➪

dress file, and a note file, among others. All are available through a menu which appears when a combination of keyboard keys is pressed.

All the data in the Polywindows files must be specifically saved to disk, as I learned to my regret, because it is not saved automatically and disappears when the power is turned off.

The neatest piece of software for this machine was the inclusion of a program which allows part of the memory to be used as a RAM-disk. It operates much as a Drive C does, except the memory is on board the Kaypro. Using WordStar and saving documents without the RAM-disk is a chore. Disk accesses are interminable, and saving documents to disk results in a churning as has seldom been heard. But, load the RAM-disk and then load WordStar and a high speed processor results. It is still prudent to save files from RAM-disk to disk however, so one has to listen to the drive churn some of the time.

Without my Osborne, I would not be able to get any output from the Kaypro, however. I have parallel printers, while the Kaypro 2000 has only a single RS-232 port. I have learned that converters for serial to parallel exist, and I'm trying to get one now, but so far, I've had to content myself with using the modem program to transmit documents from the Kaypro to the Osborne, which then drives the printers. Once I have the serial from the Kaypro to parallel adapter I won't have to go through this, but I must for now or use the Kaypro only for entering data.

The Kaypro 2000 is IBM-compatible, or is it? There is no way to know since no software beyond the bundled software is in its format. The Kaypro supposedly will accept the DG1 format, but my one experience was with a copy protected version of Sargon III, and the Kaypro would have nothing to do with it. Kaypro described a disk adapter in literature I received in June when I bought my new toy, which is supposed to allow the computer to drive a parallel printer and also to access an external 5-1/4" drive which can read IBM format disks.

I was told from about August that these parts were being shipped but my order was "lost" once, and when it was replaced, I was later told the manufacturer no longer even had the part in the computer! I also saw an external disk drive at the dealer's office and I found it difficult to believe that it was not a prototype, since it looked nothing like the unit shown in literature from Kaypro. For example, the half-height disk drive is located in the center of a box apparently intended for a full-height drive, and there was nothing around the face of the unit to prevent inquisitive fingers from getting inside!

As I mentioned, I purchased the Kaypro 2000, in part, because of the reputation of the company. The company has not lived up those expectations. For example, my dealer has contacted the sales representative at the company and been promised that parts would be shipped within the next few days, few weeks, etc. The dealer was promised parts, including a disk adapter, for a large computer show here in Seattle, but the promised parts never appeared. For a show, yet!

About that time I learned from the dealer that a call to the company showed the disk adapter and disk drive were not even shown in the computer anymore.

My dealer has apparently been getting heat from other customers who need attachments to make their Kaypro 2000's really useful to them, so he placed a call to David Kay, the vice president and sales manager of Kaypro. Several times he placed calls. Kay has never returned the calls, as of this writing (October, 1985).

The dealer did learn that Kay is now the firm's president, apparently after a palace coup at Kaypro, but that's it. I have received no response to a letter I wrote to Kay several weeks ago.

Since I can't get any support for my Kaypro 2000 from the manufacturer, I have canceled my order for $550 worth of attachments and programs from the dealer, and I wrote him a letter telling him exactly why I had canceled the order. I wrote to David Kay and told him so, too, and included a copy of this letter to him.

At this time I am unable to recommend the Kaypro 2000 to anyone because of the lack of support from the manufacturer. Should the company change the way it does business, I would certainly consider recommending this powerful little computer.

[Maybe try to use Media Master on the O-1 to read the IBM disk and transfer it to the Kaypro! Jack.]

* * *

[Bernard's first letter was copied to Kaypro in October to provide the company with the opportunity of replying. To date, no reply has been received. The following is Bernard's update to his earlier letter.]

Dear FOG:

In a previous letter, I wrote about the Kaypro 2000, one of the new lap top computers, in which I took the company to task because of what I considered to be poor customer support. Time has passed, and things have changed, and I wanted to give members an update.

I was finally able to purchase a multi-adapter base unit and external 5-1/4", 360K, IBM-compatible disk drive for my Kaypro 2000. Both are still in short supply, but I might have received mine earlier had I not canceled my original order and then get back on the waiting list.

The Kaypro 2000 is connected to the multi-adapter through a 100-pin connector in the base of the computer. A guide pin on either end of the connector in the base unit ensures lining up the connector properly, since it would be difficult to see it as the computer is lowered onto the base unit. These guide pins have a way of marring the bottom of the computer as one moves it to get proper alignment, but better a marred computer bottom than damaged connectors!

The documentation that came with the base unit was short and to the point, and I was able to configure it properly for my system. There was no documentation for the external disk drive, but there wasn't much to go wrong there.

Only one inconvenience has been detected so far since the multi-adapter was connected: the 3-1/2" on-board disk drive runs FOREVER after each disk access. Long after I'm ready to change a disk it is still buzzing away, and I have not yet been able to adjust my timing to it.

I am pleased to report the Kaypro 2000 is IBM compatible! There was some question earlier because few programs were available in the 3-1/2" disk format used on the computer. I obtained some public domain programs in the MS-DOS format, put them in my new drive, and began operating immediately!

If these work so well, I thought, why not look for a program that would make good use of the 768K RAM in my machine? I knew the Kaypro 2000 had good graphics when I saw SuperCalc3 run on it; the computer just does everything in black and white. After years without a color monitor, I'm not sure I'd set one to anything except black and white anyway!

So I bought an IBM version of Framework II, (the latest version) from Ashton-Tate. After a little confusion, and having to move the transferable files to the 3-1/2" disks, I placed the System 1 disk in the external drive and off I went!

I've sent a letter to Ashton-Tate to determine whether a version of the program on 3-1/2" disks might be possible, or whether they can put the System 1 disk of Framework II on a 3-1/2" disk, retaining its copy protection, for me.

I'm still learning to use Framework II, but it seems able to do everything on the Kaypro 2000 that it does on its bigger cousins. I configured the program, with some trepidation because it is copy protected, to run on an IBM with monochrome display. My early experience shows Framework II handles all the functions of a word processing, spreadsheet, data base and graphics programs.

It is different from WordStar, for example, so it will take some effort to learn the new commands and how to do the things that I now take for granted.

Graphs that are easily produced from spreadsheets use different arrangements of dots and bars to differentiate between values. And bold, underlined and italicized words in documents appear on screen as bold, underlined or italicized.

I'm working now to get the computer and my Okidata 82A talking to each other so I can try printing some of my practice documents and graphs.

I've used Media Master Plus to try using Osborne format disks on the Kaypro 2000, but because of the disk drive numbering I haven't had much success so far, even when using the MS-DOS ASSIGN command. I transferred a couple of programs by direct RS-232 connection and then ran them using the ZP/EM emulator, with modest success.

SuperCalc2 refused to run, while dBASE II ran, but seemed to get lost during repeated scrolling, such as during browse. At least Zork 1 seems to run without problem!

Kaypro never did respond to my letter, although my dealer here in Seattle is convinced he received two of the scarce multi-adapter base units shortly thereafter because of my letter.

At this time I can recommend a Kaypro 2000 with 768K RAM, multi-adapter base unit and external 5-1/2" drive without reservation. And if you can live without programs except for the bundle that comes with the machine the base unit and external disk drive aren't needed.

Bernard E. Jensen

• • • • • • •

SOFTWARE REVIEWS

SUPERDEX

by Fred Vanderschmidt

SUPERDEX is a set of programs designed to simplify and speed up creating indexes for documents written with WordStar. It is available from Spite Software, 4875 SW 19th Drive, Portland, OR 97201 for $59.95. I used a version designed for the Osborne 1, release 1.71.

Is it worth the trouble to index a document using the SUPERDEX program? The question is hard to answer except with another question: "Compared to what?"

Using SUPERDEX is time-consuming and frustrating. Once I learned to work around the bugs in the program and figured out its idiosyncrasies I produced a reasonable index for a 100-page document with about 40 hours of effort. With this experience behind me I could now do the job more rapidly. However it may be possible to produce as good an index with less effort with paper and pencil.

The program first constructs a lexicon of words and phrases (this file is usually called DICTNARY.SDX). The program then reads the text to be indexed and writes a raw index file (usually called RAWINDEX.SDX) which contains a set of records. For each record the occurrence of each of the lexicon entries is entered together with the page on which it occurs. Finally a formatted index is produced (usually called INDEX.SDX). The formatted index contains the information in the raw index file sorted by alphabet and page number (duplicate entries are removed) in conventional index form.

An important strength of the program is that the files are all editable using WordStar. I assume they are ASCII files.

Any document long enough to need an index is likely to be written in several files. My document had seven chapters and each was on a separate WordStar text file. I spent some time trying to figure out how to apply SUPERDEX to this situation. The way I did it:

- First build a lexicon of words and phrases from each of the chapters (my lexicon had 300 entries).
- Second, use this lexicon to produce a raw index for each of the chapters (use file names RAWDEX1.SDX, RAWDEX2.SDX, and so forth).
- Third, combine the raw index files using the WordStar ^**KR** (control KR) command in a file called RAWINDEX.SDX.
- Finally use this combined raw index file to write the final formatted index.

SUPERDEX allows you to set the beginning page number for any document for which a raw index file is being created (like the .PN command in WordStar); thus appropriate raw index files could be created even though — as in my document — the page numbers from chapter to chapter are not contiguous.

⇨

(Note that the page set option can be called only with a lower case **g**; an upper case **G** does not work.)

The method allowed me to write a formatted index for each chapter as I went along. I reviewed the index produced for each chapter and edited the raw index file for that chapter (using the WordStar **N** editing mode) until I was satisfied with the result.

Building the lexicon may proceed by marking the word or phrase in the text using WordStar — SUPERDEX uses **^PP**. The text can then be scanned by SUPERDEX and the dictionary constructed automatically. Entries can also be made manually while operating under SUPERDEX or by editing the lexicon file with WordStar.

Regardless of how the entries are made, SUPERDEX sorts the lexicon alphabetically. Reading entries from different files is no problem; the lexicon is saved to disk after each addition. It is then recalled whenever new entries are to be made from a different file.

The trouble starts with the lexicon file. If the lexicon has the word "doctor" in it, SUPERDEX will pick up any use of "doctor" when the raw index file is created. However, SUPERDEX will not pick up "doctors" or "doctor's" or "doctoring" as will the **^QF** command of WordStar. As a result, you must include any likely form of the word in the lexicon.

On the other hand, if the lexicon has the phrase "doctor assistant" in it, SUPERDEX will pick up "doctor assistants", "doctor assistant's", and so forth, just as the **^QF** command of WordStar does.

Very confusing.

I made up my lexicon using all of the forms of any single word which I thought might occur in the text (for instance singular, plural, and possessive for nouns). Phrases were included only in their singular form. This approach seemed to work.

In scanning a file to produce the raw index, SUPERDEX allows the naming of the raw index file (as any of the files) in any way. Thus the raw index file may be named to correspond with the chapter being indexed (see above). The scanning process may be performed automatically ("quick index" mode) or each match of a text word or phrase with a lexicon entry can be displayed with the surrounding text and you can decide whether you wish to have that particular occurrence included in the index ("slow index" mode).

The "slow index" mode is very useful, since a word may be used with a different meaning than the one for which you want to index it.

However, I have named this mode "slow index" because it is slow. It takes several seconds to display the match. Further, any response (other than telling the program to ignore the match) requires at least two well-spaced key strokes.

A typical chapter in my document would display 100 screens, thus the small delays mount up into many minutes for the whole document — probably over one hour. If you make a mistake, you cannot backtrack and your only recourse is to edit the raw index.

Unfortunately the scanning process — particularly the slow index variant — is subject to some bugs which I have not been able to unravel.

For sure, you must remove many of the WordStar dot commands. The only ones which I am sure SUPERDEX will accept are the top and bottom margin commands and the page advance command. The presence of any other may cause SUPERDEX to crash.

There are other things which cause the program to crash and they appear to be related to the insertion of tables and figures. Unfortunately, when the program crashes, you lose all the work you have done in the slow index mode up to that point.

Also the presence of tricky formats (titles in a left margin offset for instance) appears to confuse SUPERDEX, causing it to miss matches.

As a result of these difficulties, I ended up using only the quick index approach. I would then read the text against the formatted index which I created for each chapter and edit any inappropriate references out of the raw index file. WordStar's **^QF** command is invaluable in editing the raw index.

SUPERDEX allows the identification of secondary references (subcategories of a primary reference). Although these secondaries may be identified in the slow index mode, I found it easier and more reliable to put them in place by editing the raw data file.

SUPERDEX also allows insertion of "see also" comments — these I inserted by editing the raw index. Note that the insertion of a comment (performed by using an @ sign at the beginning of the secondary reference field of a raw index record) causes the suppression of the page reference.

If you use the slow index mode to identify secondary references, the letter **n** may mysteriously appear at the beginning of response fields. You should delete this character before making the response by backspacing over it.

The final formatting of the index is a strong point of the program. The default format is quite reasonable and it may be modified in many ways by commands to SUPERDEX. Although slow (it took about 10 minutes to format my index), the results are good. The only editing I did on the final product was the addition of some appropriate capitalization (SUPERDEX wisely ignores upper/lower case distinctions) and the correction of a few problems which I had not adequately addressed in my editing of the raw indexes.

SUPERDEX addresses an important problem in writing. I would guess that the program has not been tested in the field enough to eradicate bugs and to make it easy to use and foolproof. If you are willing to live with problems, you may be able to produce a good index in less time than with paper and pencil.

• • • • • • •

Idea Processing — Pure and Simple.

Announcing the all NEW OUT-THINK™ outline processor.

See your ideas like you've never seen them before!

Capture your fleeting ideas. And keep 'em organized with OUT-THINK, the incredible, new outline processor from KAMASOFT. OUT-THINK unleashes the power in your workhorse CP/M computer and turns it into an Idea Processor.

Get extraordinary:

- ease of use
  Most functions are less than 3 keystrokes away!
- ease of learning
  Completely interactive; no programming!
- performance
  Write more and faster than you ever dreamed possible!
- idea leverage
  OUT-THINK your competition!

OUT-THINK supports your thinking process and keeps you in touch with your ideas. That's because OUT-THINK works the way your mind works—naturally.

Begin by brainstorming. OUT-THINK lets you jot down ideas quickly, as you think of them. If you want to elaborate, you can add text with full screen editing.

Then develop your ideas using a familiar outline format. Change the structure as easily as you change your mind. Move an idea and all attached text moves with it.

You can keep track of your main line of thought by collapsing the details from view. Then, expand portions of the outline to develop the specifics when you need to. By collapsing and expanding, you can maintain an overview and literally see how your ideas fit together.

And OUT-THINK is fast. Your ideas remain at your fingertips. OUT-THINK can locate and retrieve by keyword—even a misspelled one—in less than a second per outline file.

Once you've entered your ideas, you can get them out with a full complement of formatting, printing and file conversion options (including Wordstar compatibility). From a two-page report to the Great American Novel, OUT-THINK will rotate your headers and footers with page numbers and give you a Table of Contents to boot.

OUT-THINK is brought to you by KAMASOFT. We pioneered outline processing and brought this amazing new technology to CP/M computers. For over 2 years, our KAMAS programmable outline processor has been widely acclaimed:

> *"Outline processing might be the next wave in software, and KAMAS is a good place to start."*
> - Ezra Shapiro, BYTE
>
> *"The outline processor is simple, easy to use, and will appeal to all users."*
> - Mark Renne, INFOWORLD
>
> *"If you're a writer using a CP/M based system, get KAMAS. You'll love it. It's that simple."*
> - Marybeth Highton, FOGHORN
>
> *"Considering the quality of the program itself, the documentation, and newsletter, it has to be rated an outstanding value."*
> - Thomas Tucker, PROFILES

Our new OUT-THINK is simpler and easier to use than KAMAS. Yet, it offers more printing and formatting options, better handling and control, and faster operations. And at $49.95 your ideas have never had it so good. OUT-THINK is simply spectacular. Try it for 60 days. If you're not completely satisfied, return it for a full refund.

If you create and organize text in the course of your work, you owe it to yourself to get OUT-THINK.*

*But for some people, enough is never enough. Some like the challenge; others need the power. For you, we have the KAMAS Combo Pack. You get OUT-THINK's ease of use coupled with the extra horsepower of the KAMAS programming environment. And both use the same outline files.

Rush me my choices now:

	special introductory
OUT-THINK the simple and easy to use outline processor:	$\$49^{95*}$
KAMAS the programmable powerhouse:	$\$99^{95*}$
KAMAS COMBO PACK the power and the glory:	$\$129^{95*}$

*Includes S/H U.S. & Canada. Overseas add: $10 for OUT-THINK; $30 for KAMAS or COMBO PACK.

KAMAS owners: Send us your master disk and $25 for OUT-THINK.

☐ VISA ☐ ☐ Payment Enclosed

Card No. Exp. Date

Signature

Name

Address

City State Zip

Telephone

Our software is available for most CP/M computers. Tell us about yours:

Computer Make/Model

Disk Size: ☐ 5¼" SSDD
☐ 5¼" DSDD ☐ 8" SSSD

Requirements: CP/M 2.2 or above (48K TPA). Minimum 200K of disk storage. 80 column x 24 line screen. (Note: KAMAS requires 56K TPA and Z80 processor.)

Terms: All orders prepaid. PO's accepted when accompanied by payment. Foreign checks must be drawn on US banks in US funds.

MAIL ORDERS TO:

KAMASOFT
2525 SW 224th Ave., Dept. 341
P.O. Box 5549
Aloha, OR 97007

CALL IN YOUR ORDER:
503-649-3765

Wordstar is a registered trademark of MicroPro, Inc. Z80 is a registered trademark of Zilog, Inc. CP/M is a registered trademark of Digital Research, Inc. KAMAS, KAMASOFT, and OUT-THINK are trademarks of KAMASOFT, Inc.
© 1985 KAMASOFT, Inc.

GOING INSIDE

Patch your software to fix a bug or customize your system.

DU by Example

by Don Riggs

This article has two purposes. The first and main one is to try to show you how easy it is to get a bunch of words down in print without a lot of work, and secondly, to give you a little more experience with DU.

I'm using one program here that might not be familiar to you. DUMP.COM (from FOG/UTL.033) "dumps" the contents of the screen to a disk file named by you that you then can use with your word processor to merge into a file you are writing. I'll use an example in the form of a column submittal starting here.

Some time back I picked a file from a bulletin board called AREACODE.COM. It's purpose is to give you the geographical area covered by a given area code number. (I wonder if anything along that line has been done for zip codes?)

To use it, you type AREACODE and the number, thus:

```
B> areacode 316⮐
Area code 316 is Dodge City and Wichita, Kansas.
```

Well, that looks right.

```
B> areacode 913⮐
Area code 913 is Ottawa and Topeka, Kansas.
```

Yeah, that's OK too. Let's see, Ann has three brothers in area code 501.

```
B> areacode 501⮐
Area code 501 is NOT a valid area code!
```

Hey! What gives? Look at the phone book, confirm that area code 501 is, indeed, Arkansas. Still the same results when I try it again. I try several other area codes and they all seem to work. Could be that the program's author is prejudiced against Arkies. Well, the rest of the program is useful anyhow. Think we'll just see if we can patch it to recognize Arkansas. How? Well, let's try DU.

(Here we digress a minute. Remember DUMP that I had on my program disk? Well, I also have copied it over to my work disk, and we'll use it right after DU has reported back to us.)

```
B> la:du⮐
DISK UTILITY v8.6
Universal Version under CP/M 2.2
Type ? for help
Type X to exit
:g0;d
G=00:00, T=3, S=1, PS=0
00  00464143 544F5241  4C43414C 00000029  *.FACTORALCAL...)*
10  02030405 06070000  00000000 00000000  *................*
20  00415245 41434F44  45434F4D 0000003D  *.AREACODECOM...=*
30  08091B1C 1D1E1F20  00000000 00000000  *....... ........*
40  0044554D 50202020  20434F4D 00000080  *.DUMP    COM....*
50  0A0B0C0D 0E0F1011  12131415 16171819  *................*
60  0044554D 50202020  20434F4D 01000008  *.DUMP    COM....*
70  1A000000 00000000  00000000 00000000  *................*
:x  (to get out of DU)
B> dump⮐  (in this area, the lines on the screen were all
           underlined by the program, and the following an-
           nouncement was made.)
Buffer filled with characters underlined
Type file name for screen dump
insrt2  (I typed this for "Insert 2"
Filename is insrt2
If name OK, type Y
y
Opening file ''insrt2'' for screen dump.
Aztec-C screen dump complete
Copyright 1983, Chris Hill
```

OK, now back to WordStar:

```
B:⮐
a:ws⮐
```

And we call up the file we have been working on, go to the end of the file, and read insert2 in at the location we want it by using **^KR** (control KR).

Now, the entire sector that AREACODE.COM was in has been inserted in the body of this column. Entering **g0;d** caused DU to go to the directory section of the diskette and dump the first sector.

If the file we wanted did not happen to have been in the first sector, we would have typed **+;d** a couple of times to read successive sectors until we found it.

This time the one we want just happened to be in the first sector. There it is in line 20:

```
20  00415245 41434F44  45434F4D 0000003D  *.AREACODECOM...=*
30  08091B1C 1D1E1F20  00000000 00000000  *....... ........*
```

OK, line 20 starts with a 00, which means that AREACODE is an active file. An E5 would have meant it had been erased. Line 30 tells us that the program itself starts in allocation group 08 and continues through to group 20. (All numbers are in hex.)

So, we will go to group 08, dump it, and continue scanning through the file.

```
B> a:du⮐
DISK UTILITY v8.6
Universal Version under CP/M 2.2
Type ? for help
Type X to exit
```

```
:g08;d
G=08:00, T=4, S=25, PS=24
00  21000039 22D00131  E2011195 01CD8F01  *!..9''P.1b....M.*
10  21800016 007EC601  5F193624 1181001A  *!.....F._.6$....*
20  FE20CA2E 0111BD01  CD8F01C3 8401CD8F  *. J...=.M..C..M.*
30  0111A101 CD8F0106  00118200 21E4011A  *..!.M.......!d..*
40  BEC26A01 13230478  FE03C256 011B2B1A  *)Bj..#.x..BV..+.*
50  BECA7F01 13231ABE  C2640178 FE03CA7F  *)J...#.)Bd.x..J.*
60  01C33F01 1B2B05C2  6401D511 3A0019D1  *.C?. +.Bd.U.:..Q*
70  7EFE1AC2 3F0111A6  01CD8F01 C3840123  *...B?..&.M..C..#*
```

Nothing there. We'll go on a couple of sectors.

```
:+;d
G=08:01, T=4, S=26, PS=25
00  EBCD8F01 11CD01CD  8F012AD0 01F9C90E  *kM...M.M..*P.yI.*
10  09CD0500 C90D0A41  72656120 636F6465  *.M..I..Area code*
20  24206973 20244E4F  54206120 76616C69  *$ is $NOT a vali*
30  64206172 65612063  6F646521 24204E4F  *d area code!$ NO*
40  54207370 65636966  69656421 240D0A24  *T specified!$..$*
50  00000000 00000000  00000000 00000000  *................*
60  00000000 32303561  6C6C2072 6567696F  *....205all regio*
70  6E732C20 416C6162  616D612E 20202020  *ns, Alabama.    *
```

```
:+;d
G=08:02, T=4, S=27, PS=26
00  20202020 20202020  20202020 20202020  *                *
10  20202020 20202020  20202020 20243930  *             $90*
20  37616C6C 20726567  696F6E73 2C20416C  *7all regions, Al*
30  61736B61 2E202020  20202020 20202020  *aska.           *
40  20202020 20202020  20202020 20202020  *                *
50  20202020 20202024  36303261 6C6C2072  *       $602all r*
60  6567696F 6E732C20  4172697A 6F6E612E  *egions, Arizona.*
70  20202020 20202020  20202020 20202020  *                *
```

That's the file we want. Looks fairly simple. We'll just find an empty space somewhere and insert 501 and Arkansas.

Well, it didn't turn out to be quite that simple. After fiddling with it for an hour or so, I found that the distance between different area codes was critical, requiring exactly 58 spaces between one $ sign and the next.

In any event, by using the **ca** and **ch** commands in DU, it got group 20, sector 21 to look like this:

```
G=20:04, T=9, S=21, PS=20
00  20202020 20202020  20202020 20202020  *                *
10  20202020 20202020  20202020 20243530  *             $50*
20  31616C6C 20726567  696F6E73 2C204172  *1all regions, Ar*
30  6B616E73 61732020  20202020 20202020  *kansas          *
40  20202020 20202020  20202020 20202020  *                *
50  20202020 20202024  00000000 00000000  *       $........*
60  00000000 00000000  00000000 00000000  *................*
70  00000000 00000000  00000000 00000000  *................*
```

And trying out the program:

```
B> areacode 501 ⊃
Area code 501 is all regions, Arkansas
```

Ah! Success! How sweet it is!

Now, if I had had to type in all those blocks of numbers, symbols, and letters manually, I would have been typing for a week.

Actually, this article took about an hour and a half from outline to final draft, and I am not a fast typist. I usually make kind of a rough outline (on the computer — my handwriting is illegible when cool), detailing the approximate locations where I want to DUMP a screen full of information into the file, then do all the DUMPS at one time, calling them **insrt1**, **insrt2**, etc.

Now that you see how easy it is, try it. You'll love it, and so will our editor.

[It wasn't so bad. I can't speak for the typesetter... Joanne]

* * * * * * * *

Speed Up dBASE II Ver. 2.43 for the Osborne 1

by Jerry Boyce
LOGIC Librarian

The June 1985 issue of the ***FOGHORN*** contained my article on how to speed up ver. 2.41 of dBASE II using EDFILE.COM from the FOG Library. Ashton-Tate is now out with an upgrade to ver. 2.43 and they have added a full screen of threats and propaganda that you might not want to stare at each time you bring up dBASE II.

This is much easier to eliminate than in version 2.41 if you want to retain the date prompt and it will only require entry at two additional locations to clear the date entry.

I will not repeat the instructions on the use of EDFILE as they are given in the previous article and the documentation for EDFILE on FOG/CPM.020 is very complete. The use of DDT to make the patches will be given as some people still like to make these changes the hard way. The patch locations to change from DIM to underline or reverse video are still the same as for ver. 2.41 so those instructions in the last article still apply. The screen control codes for the Osborne are:

```
1A = clear screen and home cursor
0D = carriage return
0A = line feed
09 = tab or moves the text over 8 spaces
1B 6C = underline/reverse video on
1B 6D = underline/reverse video off
```

You should place EDFILE.COM, DBASE.COM, and DBASEOVR.COM on the same disk and this may be done even if you still have a SD unit.

Then at the `A>` prompt type **EDFILE DBASE.COM.**

The first screen that you see will be for the locations 100H through 17FH and has the two locations for changing the dim to underline or reverse video. To do this enter the edit mode and enter a **6C** at location 120H and a **6D** at location 126H.

Save the changes with **^W** (control W) then hit **A** for ADDRESS. At the prompt type **505CH** ⊃ where ⊃ means carriage return). You will then get this screen except the ASCII or right hand section has been deleted since we will be making

⇨

entries only in the HEX section.

```
File: DBASE.COM  Record: 00158 (009EH)   LOF: 00167 (00A7H)
         00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
         -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
5000   - E0 E0 13 05 12 E0 E3 ED 00 45 52 52 4F 52 00 00
5010   - 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
5020   - 00 20 28 44 44 2F 4D 4D 2F 59 59 29 20 3A 00 20
5030   - 28 4D 4D 2F 44 44 2F 59 59 29 20 3A 00 00 00 00
5040   - 00 00 00 00 00 00 00 00 00 34 33 2A 20 20 33 30
5050   - 20 41 70 72 69 6C 20 31 39 38 35 00 41 53 20 41
5060   - 4E 20 55 4E 50 55 42 4C 49 53 48 45 44 20 4C 49
5070   - 43 45 4E 53 45 44 20 50 52 4F 50 52 49 45 54 41
```

You want to make the entries beginning at location 505CH in this line and between the added brackets.

```
5050   - 20 41 70 72 69 6C 20 31 39 38 35 00[41 53 20 41]
```

Enter these codes:

```
5050   - 20 41 70 72 69 6C 20 31 39 38 35 00[1A 0D 0A 00]
```

Now do **^W** and a **Q** to exit EDFILE.

This patch removes the Ashton-Tate message only and you will be prompted for the date. After entering the date or a carriage return you will go directly to the "." prompt.

It will take a little more editing with EDFILE if you want to eliminate the date and date prompt. This will not affect your ability to enter the date but will eliminate the message concerning it.

First let's replace the example, (MM/DD/YY) or (DD/MM/YY) (depending on your choice) on how to enter the date. I have chosen to place the date example with just **PRESS RETURN**; however you could use any statement with up to 12 characters and spaces. This is done more easily in the ASCII section and is done on the same screen as the above so you do not need to make the save above but just do ^E to move to the right hand side. Only the ASCII side will be used for this patch.

```
              0123456789ABCDEF      0123456789ABCDEF
              ----------------      ----------------
5020   -    ). (DD/MM/YY) :. (    ). (DD/MM/YY) :.P(
5030   -    )(MM/DD/YY) :....(    )RESS RETURN ....(
               (Original)             (Patched)
```

When you have completed this, use **^W** to save the work and then a **Q** to quit EDFILE. Now load DBASE to check the work.

This takes care of the date example and we have to go into DBASEOVR.COM for the statement "Enter today's date or return for none". At the A> prompt, type **EDFILE DBASEOVR.COM** and when the first screen appears hit **A** for ADDRESS then type **1E81H** for the location to go to. Again we will show only the HEX section as that is all that will be used to erase the statement.

```
File: DBASEOVR.COM  Record: 00059 (003BH)   LOF: 00342 (0156H)
         00 01 02 03 04 05 06 07 08 09 0A 0B 0C 0D 0E 0F
         -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --
1E80   -[0D 0A 45 6E]74 65 72 20 74 6F 64 61 79 27 73 20
1E90   - 64 61 74 65 20 6F 72 20 72 65 74 75 72 6E 20 66
1EA0   - 6F 72 20 6E 6F 6E 65 00 00 00 00 00 00 00 00 00
```

The numbers between the brackets are what we want to change.

```
1E80   -[1A 0D 0A 00]74 65 72 20 74 6F 64 61 79 27 73 20
```

Now do **^W** to save these patches and unless you want to eliminate the messages at the end of the DBASE run, hit a **Q** to quit EDFILE. The message that appears when you type "QUIT" has been added to this version and is:

```
. QUIT
*** End run    dBASE II    ***
Remember to backup your data.

A>
```

To proceed, type a **B** to go back to the beginning of the file, then type **A** for ADDRESS and then **0C10H** for the location.

```
File: B:DBASEOVR.COM  Record: 00022 (0016H)   LOF: 00342 (0156H)
         00 01 02 03 04 05 06 07 08 09 0A 0B     0123456789ABCDEF
         -- -- -- -- -- -- -- -- -- -- -- --     ----------------
0C00   -[0D 0A 2A 2A]2A 20 45 6E 64 20 72 75     )..*** End run  (
0C10   - 64 42 41 53 45 20 49 49 20 20 20 2A     )dBASE II   ***..(
0C20   - 0A 00 00 00 00 00 00 00 00 00 00 00     )................(
0C30   - 00 00 00 00 00 00 00 00 00 00 00 00     )................(
         (columns 0C thru 0F deleted)
```

To cancel this line, changes are made only to the columns within the brackets. The messages may be changed to wording of your choice. The 0D 0A at the start must remain as well as the final NOP or 00. This will leave you 61 spaces for your message and screen control codes.

```
0C00   -[1A 0D 0A 00]2A 20 45 6E 64 20 72 75     )....* End run  (
0C10   - 64 42 41 53 45 20 49 49 20 20 20 2A     )dBASE II   ***..(
0C20   - 0A 00 00 00 00 00 00 00 00 00 00 00     )................(
0C30   - 00 00 00 00 00 00 00 00 00 00 00 00     )................(
         (columns 0C thru 0F deleted)
```

Now do **^W** to save the patch then type **A** for address and enter **24C0H** as the address to go to.

```
File: B:DBASEOVR.COM  Record: 00071 (0047H)   LOF: 00342 (0156H)
         00 01 02 03 04 05 06 07 08 09 0A 0B     0123456789ABCDEF
         -- -- -- -- -- -- -- -- -- -- -- --     ----------------
             (First four rows deleted)
24C0   -[0D 0A 52 65]6D 65 6D 62 65 72 20 74     )..Remember to ba(
24D0   - 63 6B 2D 75 70 20 79 6F 75 72 20 64     )ck-up your data.(
24E0   - 00 06 00 00 00 00 00 00 00 00 00 00     )................(
24F0   - 00 00 00 00 00 00 00 00 00 00 00 00     )................(
             (columns 0C thru 0F deleted)
```

Again we replace the HEX numbers between the brackets.

```
             (First four rows deleted)
24C0   -[1A 0D 0A 00]6D 65 6D 62 65 72 20 74     )....member to ba(
24D0   - 63 6B 2D 75 70 20 79 6F 75 72 20 64     )ck-up your data.(
24E0   - 00 06 00 00 00 00 00 00 00 00 00 00     )................(
24F0   - 00 00 00 00 00 00 00 00 00 00 00 00     )................(
             (columns 0C thru 0F deleted)
```

Now a **^W** to save the changes and a **Q** to quit EDFILE. Call up dBASE and observe your work. If this is what you want, use it or you can go back in and make more changes. One set of changes that I find very useful is to change the error messages in DBASEOVR.COM to give the actual error rather than the rather cryptic messages used in the program.

Now for the purist who wants to continue to use DDT.

One of the most important things that you need to know when using DDT is the pages of file to save after you have made the changes.

There are three ways to determine this:

1. Obtain the info. from someone or find it in the literature;
2. Calculate from the HEX values that are shown when you load a file into memory using DDT, or;
3. Use STAT.COM.

A page is defined as 256 bytes of code or 2-128 byte records. STAT.COM makes the third method very easy to use, as it gives you the number of records in the file and most anyone is able to divide by two. If we run STAT on DBASE.COM and DBASEOVR.COM we get the following:

```
Recs Bytes Ext Acc                ¦ Recs Bytes Ext Acc
167  22K   2 R/W A:DBASE.COM      ¦ 342  44K   3  R/W A:DBASEOVR.COM
Bytes Remaining On A: 380K        ¦ Bytes Remaining On A: 378K
```

This shows that DBASE.COM is 167 records or 84 pages to save since any fractional page is taken to the next full number and DBASEOVR.COM is 342 records and we will need to save 171 pages.

It is best to have DDT.COM and the two dBASE files on the same disk, then at the A> type: **DBASE.COM**

```
DDT VERS 2.2                      ¦ A>DDT DBASEOVR.COM
NEXT PC                           ¦ DDT VERS 2.2
5480 0100                         ¦ NEXT PC
-S505C                            ¦ AC00 0100
505C 41 1A       ;this section    ¦ -S1E80
505D 53 0D       ;removes the     ¦ 1E80 0D 1A     ;this section
505E 20 0A       ;page of         ¦ 1E81 0A 0D     ;clears request
505F 41 00       ;threats.        ¦ 1E82 45 0A     ;for date
5060 4E          ;end entry       ¦ 1E83 6E 00     ;entry.
-S502F                            ¦ 1E84 74 .      ;end entry
502F 20 50       ;this section    ¦               ;at this point you
5030 28 52       ;replaces        ¦               ;exit with -G0 and
5031 4D 45       ;(MM/DD/YY)      ¦               ;save or proceed to
5032 4D 53       ;with            ¦               ;the other two
5033 2F 53       ;PRESS RETURN    ¦               ;patches
5034 44 20                        ¦ -S0C00
5035 44 52                        ¦ 0C00 0D 1A     ;this section
5036 2F 45                        ¦ 0C01 0A 0D     ;cancels ''End
5037 59 54                        ¦ 0C02 2A 0A     ;Run''.
5038 59 55                        ¦ 0C03 2A 00     ;
5039 29 52                        ¦ 0C04 2A .      ;end entry
503A 20 4E                        ¦ -S24C0          ;this section
503B 3A 20                        ¦ 24C0 0D 1A     ;cancels ''Back
503C 00 .        ;end entry       ¦ 24C1 0A 0D     ;files''.
-G0              ;exit DDT        ¦ 24C2 52 00     ;
                                  ¦ 24C3 65 .      ;end entry
A> SAVE 84 DBASE.COM              ¦ -G0             ;exit DDT
                                  ¦
                                  ¦ A> SAVE 171 DBASEOVR.COM
```

The ability to enter a date was left in this time as several people wanted to be able to do this, mostly during the creation and modification of .DBF files.

There it is by the two methods which should satisfy all. Have fun!

* * * * * * *

MOVING?

Please help *FOGHORN* move with you.
Send your membership number and new address to:

FOG
P. O. Box 3474
Daly City, CA 94015-0474
United States of America

Membership number: ____________

Name: ________________________________

New address: ________________________________

____

____

____

Please write clearly and give **FOG** four weeks notice to ensure uninterrupted delivery. **FOG** cannot be responsible for undelivered copies of *FOGHORN*.

* * * * * * *

ADVERTISEMENT

Getting Started with CBASIC

Most Osborne owners have this super-powerful version of BASIC but few know how to use it...or take advantage of its many unique features. This workbook will get you started (and help intermediate users too).

Logical step-by-step tutorial begins with fundamentals, carries on thru file handling, user defined functions and other advanced features. Gets you to the point where you design and write practical programs for yourself and others.

Send $25 (U.S.) check or M.O. to:
FOUR CORNERS PRESS
230 Washington Street
Hanover, Mass. 02339

NUEVO ELECTRONICS CORPORATION

P.O. Box 209 / Richmond, TX 77469 / (713) 341-6001

THE EXECUTIVE 2X2 $595.00

THE EXECUTIVE 4X4 $695.00

Also available are the following OPTIONS:

- ★ Option A: 512K of Dynamic RAM (Total)
  Use as *fast* 298K RAM disk with a two drive system or for file buffering with three of four drive system. $40
- ★ Option B: Real Time Clock (battery back-up)
  No resetting of the CP/M clock with each power-up. Screen display of time and date. Settable alarm time. $30
- ★ Option C: 8" Floppy Disk Drive Interface
  Up to 2 external 8" drives can be used in the system. $25
- ★ Option D: EEPROM
  System monitor is in EEPROM instead of EPROM. Allows ready customization of the operating system. For the sophisticated user only! $100
- ★ Option E: Math Processor Chip (AM9511)
  For those applications calling for faster "number crunching". $160
- ★ External Drive Options — Please contact factory
- ★ Option F: SCSI/SASI Port

The multifunction board (MFB) component of the Executive ESU's is available as a separate item. As such it comes without disk drives and without the double-sided drive and 8" drive capabilities. The 8 Mhz CPU and 512K of high speed RAM, of which 388K can be RAM disk, are standard. The Clock, EEPROM and Math Processor are optional. It is upgradable later to a full ESU.

The Executive versions of Nuevo's Enhanced Storage Upgrades include two new double-sided disk drives, your choice of 48 tpi (2X2) or 96 tpi (4X4), a multi-function memory board upgrade, an 8 Mhz Z-80 CPU and new disk controller and monitor ROM IC's. The 2X2 provides 386K per drive and the 4X4 has 782K per drive. Installation is straightforward and simple. There is *no* soldering.

In addition to doubling (or quadrupling) the disk storage space, the Nuevo ESU's for the Executive include the following features as STANDARD:

- ★ Expandable to Four Floppy Disk Drives
  The Executive ESU's can address up to two additional external disk drives, in any combination of 48, 96, or 100tpi, in any combination of 3½, 5¼, or 8" drives.
- ★ Foreign Disk Handling
  The ESU Executive reads, writes and formats over 40 different computer formats, including IBM PC DOS 1 & 2, both SS and DS. The new BIOS recognizes *automatically* all of the following plus even more:
- ★ 8Mhz Z-80
  The Executive runs with twice the speed of the original factory 4 Mhz processor!
- ★ 3msec Drive Step Rate.
- ★ 256K of *High Speed* Dynamic RAM
  More memory for CP/M file buffering!
- ★ Upgradable to 2 Megabytes of Memory!
  (Pending availability of new RAM's from manufacturers). The multifunction board is socketed for the next generation 1 Megabit X 1 RAMS.

SS FORMATS
- DEC VT 180 DD
- Heath Magnolia DD
- Heath Z90 DD
- IBM CP/M86 DD
- Kaypro II DD
- Lobo Max80 DD
- NEC8000 DD
- NEC8001A DD
- Nelma Persona DD
- OKI if 800 DD
- Osborne One SD&DD
- Osborne Exec DD
- TI Pro CP/M86 DD
- TRS80 I SD
- TRS80 III DD
- TRS80 IV DD
- Xerox 820 SD
- Xerox 820 DD

DS FORMATS
- Altos 580 DS/DD (96 tpi)
- Ampro Little Board (96tpi)
- Cromemco CP/M80
- Epson QX-10
- Heath Z100
- HP-125 (CPM86)
- NEC8801A
- Nuevo 0-1 2X2
- Nuevo 0-1 4X4 (96tpi)
- Osborne Vixen
- Sanyo
- Televideo 803

THE O-1 2X2 UPGRADE

Both original drives are replaced with double-sided 48tpi drives that give 2X the storage capacity of standard double density. 386K useable space, 128 directory entries, per drive.

$595.00

($445 if you already own a *Nuevo* Double Density Upgrade)

INTERNAL THIRD DRIVE

(Includes 50 watt replacement power supply for O-1 plus a cooling fan)

Model IN4	(DS/48tpi 386K)	$150.00
Model IN9	(DS/96tpi 782K)	$200.00

THE O-1 4X4 UPGRADE:

Both original drives are replaced with double-sided 96tpi drives that give 4X the storage capacity of standard double density. 782 K useable space, 256 directory entries per drive.

$695.00

($545 if you already own a *Nuevo* Double Density Upgrade)

EXTERNAL THIRD DRIVE

Includes drive housing with built-in linear power supply)

Model EX4	(DS/48tpi 386K)	$100.00
Model EX9	(DS/96tpi 782K)	$150.00

80 COLUMN UPGRADE

Increase your standard screen size to a full 80 columns. No loss of horizontal scrolling. Excellent resolution, even on the internal screen. Six software selectable cursor styles. Optional baud rate generator provides 16 baud rates from 50 to 19.2K baud. No soldering *unless* BRG option installed.

$200.00

(Add $30 for optional baud rate generator)

DOUBLE DENSITY UPGRADE

Provides a full 183K of data storage per disk. Totally compatible with the factory double density. File sizes in 1K increments. An optional power cable assembly permits use of standard (non-Osborne) disk drives. Increase your storage even more in the future...this item is upgradable to double-sided double density. No soldering.

$150.00

(Add $15 for optional power cable assembly)

YES! I want to "Upgrade" my Osborne with the item(s) I've checked below!
☐ 80 Column Upgrade @ $200.00 ☐ 80 Column Upgrade with BRG @ $230.00
☐ Double Density Upgrade @ $150.00
☐ Double Density Upgrade with cable for Standard Drives @ $165.00
☐ 0-1 2 x 2 Upgrade (772K) @ $595.00 or ☐ $445.00 if Nuevo DDU owner
☐ 0-1 4 x 4 Upgrade (1564K) @ $695.00 or ☐ $545.00 if Nuevo DDU owner
☐ My 0-1 has a ☐ Brown Case ☐ Blue Case ☐ and is ☐ SD ☐ DD
The Rev. # is ____________ (Note: The Rev. # is usually displayed at the top of the screen when the computer is first turned on)
☐ Exec 2 x 2 Upgrade (772K) @ $595.00 ☐ Exec 4 x 4 Upgrade (1564K) @ $695.00
☐ Exec MFB Upgrade @ $425.00
☐ Exec Options (please list) ____________

Name ____________
Address ____________
City ____________ State ____________ Zip ________
Phone ____________
Texas residents please add 5 1/8% sales tax.
☐ I'm enclosing a check or money order for the item(s) indicated.
☐ Please ship C.O.D.
☐ Please charge to my ☐ VISA ☐ MasterCard
____________ Expiration Date ________
Authorized Signature ____________

CALENDAR

Under this heading you will find the listing of activities and events of Affiliated Member Organizations. Listings are the responsibility of the groups' officers. Officers must have corrections into FOG office by the first of the month prior to publication (December 1st for the January issue). For a list of other groups, see *"**CONTACTS**"* in back issues starting January, 1983, or send a stamped, self-addressed envelope to the FOG offices. Please include a note with your geographical area. To verify the meeting date, time, or location, call the number in the right hand column.

Date	City	A.M.O.	Day	Time	Meeting Address	Contact No.
Mar 17	Soldotna, AK	18-PenFOG	3rd M	7:00pm	Totem Realty, 44669 Sterling Highway	907-262-5801
Mar 17	Anchorage, AK	63-GLOB	3rd M	7:00pm	Horizon Recovery Center Conference room	907-276-6484
Apr 10	Sitka, AK	83-BUG	2nd Th	7:30pm	Human Services Center, 207 Moller Dr.	907-747-8615
Apr 8	Ketchikan, AK	89-KCPM	2nd Tu	7:00pm	1182 Black Bear Road	907-225-9249
Mar 29	Homewood, AL	49-FAOUG	last Sa	1:00pm	Homewood Public Library, 1755 Oxmoor Road	205-669-4396
Apr 10	Huntsville, AL	125-NAOUG	2nd Th	7:00pm	CONFIRM	205-881-0377
Apr 10	Ft. Smith, AR	23-AFOG	2nd Th	7:00pm	Lewis Paint and Supply, 4900 Wheeler Avenue	501-785-0820
Apr 1	Tempe, AZ	100-TOG	1st Tu	6:30pm	Tempe Public Library, Pyle Adult Center, Southern Ave at Rural Rd	602-969-2074
Mar 26	Stockton, CA	11-SOG	4th W	7:00pm	Citicorp Savings, Pacific Ave.	209-946-2302
Apr 14	Fresno, CA	35-FROG	2nd M	7:00pm	1434 West Shaw, Suite A	209-683-2252
Mar 27	Porterville, CA	66-SVFOG	4th Th	6:00pm	1502 North Lowery	209-781-4123
Mar 19	Long Beach, CA	130-OPEN	3rd W	6:30pm	C.S.U., Learning Assistance Center	213-498-4186 x 5350
Mar 13	Cupertino, CA	1-1st FOG SV	2nd Th	7:30pm	Cupertino Public Library, 10400 Torre	408-371-8699
Apr 11	Castroville, CA	5-MBAOCUG	2nd F	7:00pm	Castroville Fire Station, Rec Room, Speegle & Pomber	408-728-1416
Mar 27	San Francisco, CA	2-SFCS	4th Th	7:00pm	St. Aidan's Church, Goldmine & Diamond Hgts.	415-239-1399
Apr 9	Oakland, CA	3-East Bay FOG	2nd W	6:00pm	B & B Electric, 2832 Ford Street	415-272-9099
Apr 8	San Rafael, CA	31-MOG	2nd Tu	7:00pm	San Rafael High School, 2nd Street	415-897-0629
Mar 19	Walnut Creek, CA	60-MTDOG	3rd W	7:00pm	Thurman Casey Memorial Library, 2661 Oak Grove Road	415-933-2665
Mar 17	Menlo Park, CA	68-SMOG^3	3rd M	7:30pm	Crane Place, 1331 Crane	415-325-2442
Apr 7	Menlo Park, CA	68-SMOG^3	1st M	7:30pm	Crane Place, 1331 Crane	415-325-2442
Apr 14	29 Palms, CA	114-HOG	2nd M	6:00pm	CONFIRM	619-367-9783
Mar 19	Arcata, CA	29-HOG	3rd W	7:15pm	Humbold State Univ., Science Bldg., Rm 126	707-445-2074
Apr 3	Santa Rosa, CA	56-No. Bay FOG	1st Th	7:30pm	Valley Oak Park Rec Hall, 2600 Northcoast St.	707-526-0250
Apr 6	Orange, CA	113-NOCOG	1st Su	2:30	Chapman College, Science Bldg., Rm 128	714-952-5627
Apr 1	Santa Maria, CA	42-SMOG	1st Tu	7:00pm	Sears Savings Bank, 401 South Broadway	805-937-1128
Apr 10	San Luis Obispo, CA	47-CCOG	2nd Th	7:00pm	TRW, 1050 Southwood Drive	805-528-2382
Mar 25	Santa Barbara, CA	69-OSBUG	last Tu	7:30pm	SB Planning Rm, 105 E. Anapamu St	805-687-8541
Apr 8	Pasadena, CA	84-OKOK	2nd Tu	6:30pm	Caltech, Winnette Lounge	818-794-3243
Apr 11	Chatsworth, CA	86-ONUG	2nd F	7:00pm	Wizard of OsZ 20630 Lassen Street	818-709-6202
Mar 24	Sherman Oaks, CA	106-TUG-NET	4th M	7:00pm	Central Savings, 4464 Van Nuys Blvd.	818-994-6567
Apr 3	North Hollywood, CA	106-TUG-NET	1st Th	7:00pm	Valley Plaza Park Community Center, 12240 Archwood	818-994-6567
Apr 10	Davis, CA	6-MUGSY	2nd Th	7:00pm	CONFIRM	707-557-5162
Apr 2	Sacramento, CA	61-SOG	1st W	7:00pm	SMUD Utility Bldg, 1708 59th St	916-456-4139
Apr 3	Denver, CO	4-DOG	1st Th	7:00pm	Clements Comm. Center 2nd Floor 1580 Yarrow	303-690-6301
Apr 9	Boulder, CO	65-BUG	2nd W	7:00pm	Colorado Univ. Business School, Rm 101	303-494-8741
Apr 2	Thornton, CO	85-MIST	1st W	7:00pm	12599 North Colorado Blvd	303-451-0456
Mar 19	Ft. Collins, CO	115-FTCOG	3rd W	7:30pm	C.S.U.Ind. Sciences Computer Lab, 200 W. Laurel, Rm 200	303-226-4156
Mar 19	Colorado Springs, CO	133-CSOG	each W	7:00pm	Hewlett Packard, Garden of the Gods, Spruce Rm	303-473-7647
Mar 26	Colorado Springs, CO	133-CSOG	each W	7:00pm	Hewlett Packard, Garden of the Gods, Spruce Rm	303-473-7647
Apr 2	Colorado Springs, CO	133-CSOG	each W	7:00pm	Hewlett Packard, Garden of the Gods, Spruce Rm	303-473-7647
Apr 9	Colorado Springs, CO	133-CSOG	each W	7:00pm	Hewlett Packard, Garden of the Gods, Spruce Rm	303-473-7647

Continued next page

Date	City	A.M.O.	Day	Time	Meeting Address	Contact No.
Apr 16	Colorado Springs, CO	133-CSOG	each W	7:00pm	Hewlett Packard, Garden of the Gods, Spruce Rm	303-473-7647
Mar 26	Danbury, CT	40-DOG	4th W	7:00pm	Danbury Hospital Library,2nd Floor, 26 Hospital Avenue	203-775-1102
Apr 9	Danbury, CT	40-DOG	2nd W	7:00pm	Danbury Hospital Library, 2nd Floor, 26 Hospital Avenue	203-775-1102
Mar 20	Orlando, FL	16-GOOUG	each Th	7:30pm	Gard Micro Systems, 7525 Currency Road	305-847-7031
Mar 27	Orlando, FL	16-GOOUG	each Th	7:30pm	Gard Micro Systems, 7525 Currency Road	305-847-7031
Apr 3	Orlando, FL	16-GOOUG	each Th	7:30pm	Gard Micro Systems, 7525 Currency Road	305-847-7031
Apr 10	Orlando, FL	16-GOOUG	each Th	7:30pm	Gard Micro Systems, 7525 Currency Drive	305-847-7031
Mar 20	Maitland, FL	20-CFLOG	3rd Th	7:30pm	Lake Faith Villas Club Room, Maitland Blvd	305-298-8576
Apr 3	Maitland, FL	20-CFLOG	1st Th	7:30pm	Lake Faith Villas Club Room, Maitland Blvd	305-298-8576
Apr 13	Miami, FL	26-GCOUG	2nd Su	1:30pm	F.I.U Tamiami Campus, Building DM, Room 100	305-233-1779
Apr 10	Ft. Lauderdale, FL	91-FLOG	2nd Th	7:00pm	Harris Computer Sys, 2101 W. Cypress Creek	305-748-7237
Mar 25	Clearwater, FL	46-TBOG	4th Tu	7:30pm	St. Petersburg Times Building	813-584-4185
Apr 8	Tampa, FL	46-TBOG	2nd Tu	7:30pm	Jefferson High School	813-584-4185
Apr 8	Tallahassee, FL	77-TCPMUG	2nd Tu	7:30pm	Episcopal Church of the Advent, 815 Piedmont Drive	904-878-4592
Apr 9	Jacksonville, FL	98-JOUG	2nd W	7:00pm	JEA Bldg, 233 W. Duval Street	904-633-4920
Apr 7	Athens, GA	81-CP/M Athens	1st M	7:00pm	Athens Microcomputer Center, W. Broad Street	404-353-2127
Apr 14	Atlanta, GA	93-TOGA	2nd M	7:00pm	Emory University, Chemistry Bldg. Ampitheater, Decatur Road	404-636-1480
Call	Hilo, HI	124-HIFOG	????		Shayne Enterprises, 180 Kinoole Street	808-935-8678
Mar 24	Davenport, IA	102-QCOG	4th M	7:00pm	CONFIRM	319-386-3484
Apr 9	Davenport, IA	102-QCOG	2nd W	7:00pm	CONFIRM	319-386-3484
Mar 11	Des Moines, IA	12-Midwest FOG	2nd Tu	7:00pm	(odd months) Yonker's Computer Depot, 100 Merle Hay Plaza	515-270-3573
Apr 8	Ames, IA	12-Midwest FOG	2nd Tu	7:00pm	(even months) IA State Univ. 200 Engineering Annex	515-270-3573
Apr 10	Sioux City, IA	38-SOG	2nd Th	7:30pm	Western Iowa Tech., Room 508	712-252-2182
Mar 30	River Grove, IL	80-CFOG	last Su	1:00pm	College Center Bldg, Triton College, 2000 Fifth Ave	312-654-0986
Apr 12	River Grove, IL	80-CFOG	2nd Sa	1:00pm	College Center Bldg, Triton College, 2000 Fifth Ave	312-654-0986
Apr 3	W. Lafayette, IN	34-HOG	1st Th	7:00pm	CONFIRM	317-474-0253
Apr 7	Bloomington, IN	87-IOU	1st M	7:30pm	Indiana Univ, Cyclotron Facility, 2401 M. B. Sampson Lane	812-334-3234
Mar 25	Wichita, KS	21-OPEK	4th Tu	7:30pm	St. Paul's Methodist Church, 1356 Broadway	316-832-0447
Apr 1	Hutchinson, KS	137-HUTCH	1st Tu	7:30	Hutchinson Public Library	316-663-7678
Apr 12	Louisville, KY	64-PCCL	2nd Sa	1:00pm	Univ. of Louisvile, Burhans Hall Rm 202, Shelbyville Road	502-451-0508
Mar 15	Lexington, KY	32-KOG	3rd Sa	12:00n	213 Funkhouser Building, University of Kentucky	606-269-1684
Apr 14	Baton Rouge, LA	103-FLOG	2nd M	7:00pm	Johnson Equipment Co., 4264 Perkins Road Co.	504-923-0888
Mar 25	Bedford, MA	122-BOG	last Tu	7:30pm	Mitre Corp., Route 62	617-484-1863
Apr 11	Lexington, MA	122-BOG	2nd F	7:30pm	Honeywell Electro Optical Div, Route 2A	617-484-1863
Call	Silver Spring, MD	96-ERC-OUG	????		CONFIRM	301-622-4400x5331
Mar 17	Portland, ME	136-SMOG	3rd M	7:00pm	Portland Jetport Conference Room	207-772-1616
Mar 17	Dearborn, MI	14-DeFOG	3rd M	7:30pm	Ford Tech Center Cafeteria, 1700 Rotunda Dr	313-626-6641
Mar 20	Ann Arbor, MI	37-TOGA^2	3rd Th	7:00pm	Neuro Science Bldg. Univ. of MI, 1103 East Huron St	313-665-5753
Apr 8	Duluth, MN	118-DSO	2nd Tu	7:00pm	1440 90th Avenue West	218-626-3344
Apr 10	St. Paul, MN	111-TCOG	2nd Th	7:00pm	Univ. of MN,St. Paul Campus Rm B-45 Classrm Off Bldg	612-698-0225
Mar 25	St. Louis, MO	55-SLOG	4th Tu	7:00pm	Thornhill Library, 12863 Willowyck	314-991-4399
Mar 25	Kansas City, MO	97-MIZOG	Last Tu	7:00pm	TWA Bldg, 13th & Baltimore	913-686-2853
Apr 1	Jackson, MS	58-MCPM	1st Tu	7:00pm	R & D Center, Ridgewood Road	601-856-2509
Apr 14	Charlotte, NC	71-LOGIC	2nd M	7:30pm	Home Federal Savings and Loan, Carmel Road	704-377-1154
Mar 10	High Point, NC	107-TROGIC	2nd M	7:30pm	(Odd Months) High Point College, Science Building, Basement	919-766-5530
Apr 10	High Point, NC	107-TROGIC	2nd Th	7:30pm	(Even Months) High Point College, Science Building, Basement	919-766-5530
Mar 17	Raleigh, NC	8-ROCC	3rd M	7:30pm	CONFIRM — Dreyfus Aud., Research Triangle Inst.	919-782-9576
Mar 20	Fargo, ND	117-O/KUG	3rd Th	7:00pm	NDSU, Civil Engineering, Room 216	701-280-1700
Apr 8	Lincoln, NE	39-Lincoln LOG	2nd Tu	7:30pm	5530 O Street	402-761-3393
Mar 19	Woodbridge, NJ	138-JOG	3rd W	7:30pm	St. James School, Main Street	201-272-2073
Mar 27	Albuquerque, NM	127-AOG	last Th	7:00pm	CONFIRM	505-268-3606
Apr 11	Albuquerque, NM	127-AOG	2nd Tu	7:00pm	CONFIRM	505-268-3606

Continued next page

Date	City	A.M.O.	Day	Time	Meeting Address	Contact No.
Mar 19	Las Vegas, NV	25-VOG	3rd W	7:00pm	CONFIRM	702-452-2544
Apr 8	New York, NY	135-NYOUG	2nd Tu	7:00pm	73 Franklin Street	212-594-5976
Apr 6	Liverpool, NY	82-SOUP	1st Su	2:00pm	8371 Red Wing Drive	315-622-9209
Apr 9	W. Hempstead, NY	88-LION	2nd W	7:30pm	Adelphi Univ Cont Ed Ctr, Room 110, Eagle Ave	516-481-0129
Apr 8	Rochester, NY	132-FROG	2nd Tu	7:30pm	Monroe County Cooperative Ext. Center, 249 Highland Avenue	716-385-3456
Mar 19	Rye, NY	104-WOG	3rd W	7:15pm	Westchester Federal Savings Bank, 67 Purchase Street	914-725-1098
Apr 7	Oberlin, OH	9-^Ob^Os	1st M	7:30pm	Oberlin College, Rice Faculty Lounge, W. College Street	216-775-8706
Apr 14	Uniontown, OH	44-AKCAN	2nd M	6:30pm	13100 Cleveland Avenue NW	216-837-8926
Apr 9	Cleveland, OH	75-COG	2nd W	7:00pm	United Way, 3100 Euclid Avenue	216-888-2078
Mar 18	Cincinnati, OH	27-COG	3rd Tu	7:00pm	Central Trust Center 6th floor, 5th & Main Streets	513-232-4076
Apr 1	Dayton, OH	79-DOUG	1st Tu	7:30pm	St. Paul's Episcopal Church, 33 Dixon Drive	513-837-5651
Apr 9	Oklahoma City, OK	67-OKLOG	2nd W	7:30pm	Southwestern Bell, 111 Dean A McGee, Blue & Gold Rm	405-360-2141
Mar 27	Tulsa, OK	51-OUT	4th Th	8:00pm	Sheridan Library, 62 North Sheridan Road	918-587-3918
Call	Medford, OR	54-RVOG	????		CONFIRM	503-773-1222
Mar 26	Portland, OR	57-PMS	4th W	7:30pm	Bonneville Power Admin. Aud., 1002 NE Holladay St.	503-228-6345
Apr 6	Eugene, OR	128-LOCUG	1st Su	7:00pm	Farwest Federal Bldg., 96 E. Broadway & OAK	503-747-8242 Willamette S & L
Apr 12	Philadelphia, PA	121-PhROG	2nd Sa	9:30am	Merck, Sharp & Dome, Sumneytown Pike	215-648-5862
Mar 23	Pittsburgh, PA	50-TROG	4th Su	2:30pm	Mellon Science Building, Duquesne Univ.	412-456-3946
Call	Lancaster, PA	74-LOG	????	7:30pm	CONFIRM	717-285-4940
Mar 20	Lemoyne, PA	92-MIDPOG	3rd Th	7:30pm	One Stop Computer, 65 N. 5th St	717-243-7858
Mar 25	Greenville, SC	41-POGO	4th Tu	6:30pm	C. Douglas Wilson, 201 E. North Street	803-233-3434
Mar 19	Oak Ridge, TN	13-SMOG	3rd W	7:30pm	(odd months) ECS 136 Fairbanks	615-483-6857
Apr 16	Knoxville,TN	13-SMOG	3rd W	7:30pm	(even months) 11505 Kingston Pike	615-483-6857
Mar 20	Nashville, TN	119-MidTOG	3rd Th	7:00pm	Cumberland Museum, 800 ridley blvd.	615-244-5343
Mar 25	Memphis, TN	15-MOG	4th Tu	6:30pm	Poplar/White Station Library	901-522-1234
Mar 20	College Station, TX	43-AGGNOG	3rd Th	5:30pm	A & A Building, Texas A & M Univ. Room 503	409-845-7770
Mar 19	Austin, TX	7-AEIOU	3rd W	6:30pm	Old Quarry Library off Far West Blvd. 7051 Village Center	512-836-3010
Mar 21	Houston, TX	76-OUCH	3rd F	7:30pm	Univ. Houston, 101 Farish Hall, KIVA Rm. (Use lot 1341 off Cullen)	713-931-1096
Apr 12	Houston, TX	108-CLOG	2nd Sa	9:00am	Gilruth Rec. Center, Johnson Space Center	713-554-4304
Mar 23	Amarillo, TX	28-POG	4th Su	2:30pm	Downtown Branch Amarillo Public Library	806-355-7509
Apr 13	Amarillo, TX	28-POG	2nd Su	2:30pm	Downtown Branch Amarillo Public Library	806-355-7509
Apr 14	Lubbock, TX	134-LOG	2nd M	7:30pm	Texas Tech Univ. Law Bldg., 19th & Hartford Room 202	806-742-3920
Mar 19	Provo, UT	30-KAOS	3rd W	7:00pm	Wiltec Research Co. 488 South 500 West	801-225-8293
Mar 20	Salt Lake City, UT	105-SMOG	3rd Th	6:00pm	Sofshop, 2166 Highland Drive	801-268-2831
Mar 20	Richmond, VA	52-CVOG	3rd Th	7:00pm	Red Cross Bldg, 4th and Main	804-270-4936
Mar 15	Norfolk, VA	78-TOG	3rd Sa	9:00am	ECPI, 3661 East Virginia Beach Blvd.	804-495-1596
Mar 20	St. Croix, VI	70-StCOUG	3rd Th	6:30pm	St. Croix Country Day School Library	809-773-7551
Apr 7	Tacoma, WA	72-TOG	1st M	7:00pm	Parkland Library (Basement Mtg Rm) 404 Garfield So.	206-752-5582
Mar 19	Federal Way, WA	99-SKOG	3rd W	7:30pm	Highline Comm. Coll, Gold Rm — Bldg 4	206-643-3521
Mar 17	East Wenatchee, WA	10-WOG	3rd M	7:00pm	211 Ridgemont Drive	509-884-3279
Apr 10	Richland, WA	19-TROG	2nd Th	7:00pm	Richland Public Library, Swift & Northgate	509-967-2430
Apr 9	Spokane, WA	123-SMUG	2nd W	7:00pm	Komputer Korner, N. 2001 Monroe	509-482-7989
Apr 7	Milwaukee, WI	22-MilwOG	1st M	7:00pm	Math Bldg. Rm 495, Univ. of W. M.	414-255-0440
Apr 1	Madison, WI	129-MOO	1st Tu	7:00pm	Univ of WI., 1210 West Dayton Street, Rm B-214	414-887-2036
Mar 19	St. Albans, WV	59-Valley FOG	3rd W	6:30pm	Public Library, 6th Ave. and 4th Street	304-727-8716
Mar 23	Ashburton, Aust	131-VOUG	4th Su	2:00am	(odd months) Ashburton Public Library, 152 High Street	03-459-8934
Apr 23	Melbourne, Aust	131-VOUG	4th W	6:00pm	(even months) RMIT, Swanson St., Floor 9, Bldg. 12, Rm 908	03-459-8934
Apr 14	Edmonton, Alta	45-KOG	2nd M	7:30pm	Alberta Vocational College, 10215 - 108 Street	403-464-5088
Apr 14	Calgary, Alta	94-COUG	2nd M	7:30pm	616 Macleod Trail S, Seminar room 3,	403-239-5685
Apr 9	Vancouver, B.C.	17-VPCC	2nd W	7:30pm	Hastings Community Center, 3096 East Hastings	604-298-6990
Mar 18	Victoria, B.C.	48-VICOG	3rd Tu	7:30pm	Canadian Forces Base Esquimalt	604-383-1512
Mar 31	Toronto, Ont	120-OUCT	last M	7:00pm	Parkdale Public Library, 1303 Queen St. W.	416-533-1531

Continued next page

Date	City	A.M.O.	Day	Time	Meeting Address	Contact No.
Apr 8	London, Ont	95-LOG	2nd Tu	7:30pm	Univ. of W. Ont., Elborn College, Room 2130	519-438-7224 x267
Apr 3	Montreal, P.Q.	73-Microcozm	1st Th	6:30pm	Hillside Armoury, 3 Hillside Lane	514-932-4164
Call	Charlottenlund, Denmark	126-FORMICRO	????	5:00pm	CONFIRM	45-1-631760
Apr 14	Paris, France	110-OUF	2nd M	6:30pm	Centre Andre Malraux, 78 Bd Raspail	1-544-6216
Apr 3	Hod Hasharon	33-IOUG	1st Th	6:30pm	21 Hankin Str	052-34043
Apr 8	Auckland, New Zealand	53-NZOG	2nd Tu	8:00pm	Auckland University, Human Sciences Building, Rm 336	275-4310
Apr 2	Wellington, New Zealand	109-CROG	1st W	7:30pm	Cafeteria of Trade Span (N Z), 300 Tranaki St.	0064-4-791-172
Mar 18	Edenvale, So Africa	90-JOG	3rd Tu	6:30pm	Civic Centre	011-51-6304
Apr 11	Hattersheim, W. Ger.	24-AGOG	2nd F	7:00pm	Hattersheim Posthof	061-52-4210
Mar 19	Kaiserslautern, W. Ger.	62-FROG	3rd W	7:00pm	Ramstein Air Base, Ramstein Rec. Center	49-6371-13117
Call	Kronberg, W. Ger.	36-CCD	????		CONFIRM	07304-3274

FOG FONES

System ID	Phone number	Location	Size	Baud rate	When in operation	Notes
FOG office	(415) 755-2000	Daly City, CA	**voice only**		10am - 5:30pm/M-F	***voice calls only please***
FOG #1	(415) 755-2030	FOG Office	47Mb	3/12/24	24 hrs/seven days	
FOG #2	(604) 941-2972	Vancouver, BC	10Mb	300/1200	24 hrs/seven days	
FOG #3	(415) 992-8542	Daly City, CA	47Mb	3/12/24	24 hrs/seven days	
FOG #4	(415) 591-6259	Belmont, CA	10Mb	3/12/24	24 hrs/seven days	technical notes
FOG #5	(415) 424-1482	Palo Alto, CA	10Mb	300/1200	24 hrs/seven days	Officers' Council
FOG #6 (Library)	(415) 755-8315	FOG Office	47Mb	3/12/24	24 hrs/seven days	Uploads
FOG #10	(717) 657-8699	Harrisburg, PA	20Mb	3/12/24	24 hrs/seven days	
FOG #11 (KAY*FOG)	(415) 285-2687	San Francisco, CA	10Mb	300/1200	24 hrs/seven days	message system
FOG #12	(415) 851-7732	Woodside, CA	40Mb	300/1200	24 hrs/seven days	**new number**
FOG #13 (Constitutional Pathway Thirteen)	(405) 848-5317	Oklahoma City, OK	10Mb	300/1200	24 hrs/seven days	
FOG #14	(217) 344-4032	Urbana, IL	10Mb	300/1200	24 hrs/seven days	
FOG #18	(707) 557-4403	Vallejo, CA	46mb	300/1200	24 hrs/seven days	Long Range Planning Comm.
FOG #22	(817) 662-2487	Waco, TX	10Mb	300	6pm - 6am/M-F; 24hrs/S-S	
FOG #23	(615) 292-0710	Nashville, TN	11Mb	300/1200	24hrs/seven days	Epson PX-8 SIG
FOG #24 (SoftStone)	(502) 241-4109	Louisville, KY	10Mb	300/1200	24hrs/seven days	
FOG #25	(319) 326-3904	Davenport, IA	21Mb	300/1200	24hrs/seven days	
FOG #26	(313) 792-7169	Mt. Clemens, MI	360K	300/1200	24hrs/seven days	
FOG #27	(404) 354-0662	Athens, GA	10Mb	300/1200	24hrs/seven days	
FOG #29	(617) 288-4667	Boston, MA	11Mb	300	5pm - 9am/M-F; 24hrs/S-S	
FOG #30	(714) 962-9999	Huntington Beach, CA	44Mb	300/1200	24hrs/seven days	
FOG #31	(415) 692-1406	Burlingame, CA	780K	300/1200	24hrs/seven days	
FOG #32 (FOG*Light)	(408) 287-7108	San Jose, CA	22Mb	300/1200	24hrs/seven days	2400 baud coming
FOG #33	(415) 655-1206	Oakland, CA	10Mb	300/1200	24hrs/seven days	
FOG #38	(415) 792-3481	Newark, CA	45Mb	3/12/24	24hrs/seven days	
FOG #41	(201) 467-2739	Elizabeth, NJ	360K	300/1200	24hrs/seven days	
FOG #48	(415) 365-2650	Redwood City, CA	23Mb	3/12/24	24hrs/seven days	
FOG #49	(201) 848-8217	Wyckoff, NJ	23Mb	300/1200	24hrs/seven days	

WRITING TOOLS

If it's relevant to word processing, you'll find it here.

SmartKey-Assisted WordStar

by Arto Kytohonka

Even if Software Research Technologies (former Heritage Software) doesn't answer letters, or sell their advertised book ***SCREEN SMARTS***, SmartKey II is a truly great and helpful program. (XtraKey is cheaper, sounds just as good, so maybe someone can tell us about it sometime, too?)

SmartKey II's only limitation is loading into the top of the TPA. Like NewWord, a superior word processor, and EX14, the versatile public domain submit command, SmartKey takes its 4.25K in the same place, so you have to choose.

So far I have preferred SmartKey. It works OK with WordStar and with the soft keys you make some super fast pseudo submitting.

Anyway, designing new definitions soon becomes a hobby. Here are some SmartKey functions for all the merry WordStarers. (The ^ means control.):

```
1.  ^C^QP
```
Clean the screen by scrolling up the cursor with the text.

```
2.  ^QF.^MB1^M^D^D^KB^QF.^M1^M^D^D^KK^QB
```
Mark a sentence as a block.

```
3.  ^QS^KB^QF^N^M^M^D^KK
```
Mark a line.

```
4.  ^QF^N^MB^M^B^KB^B^F^KK^QB
```
Mark a block.

```
5.  ^KS^QP
```
Save and resume editing where you left off.

```
6.  ^KDP^R
```

```
7.  ^QS^N^KR A:A.PRM^M
```
Read an initializing printing parameter from Drive A.

```
8.  ^OI 8^M^OG^OG
```
Add a tab and format.

```
9.  ^OT^OP^OJ^OH^QQ^B
```
Show the ruler line again. The page breaks too, and starts formatting.

```
~.  ^A^QQ^B
```

```
0.  ^OR52^M^QS.cw13^F^PB^QD^F^QD^PB^E^OC^X^OC^X^B.cw10
^M^OR74^M
```
Center a title and make it bold.

```
{.  ^F^OG^B
```

```
[.  ^ON A^M^OI 6^M^OI 8^M^OI 13^M^OT
```

```
}.  ^F^OG^OG^B
```

```
].  <^F^OG^OG^OG^B>
```

```
{.  -(.])
```
Soft keys to indent the blocks.

```
!.  <^QR^N..MICRO MANIAC PRM^M^QS.LH 15^M.CW 11^M^ON A^M
^OI 33^M^OI 56^M><..PUT THE TOTAL OF PAGES. PRESS ESC AND MM
#^M.HE^Imicro maniac/ak #/><mm^QS^M..CHECK THE PAGES><^Y^QF
#^MB^M^D^D><^M .FO^I^I(continued)^M^M^M^OI6^M>
```
A parameter for the articles sent as hard copies to Micro Maniac.

```
@.  <^QR^N^QS.LH11^OR 74^M^QS..LTRPRM^M..^OR 74><^ON A^M
^OP^OT^QC^M..CHECK THE NUMBER OF PAGES>
<^QF..LTRPRM^MB^M^D^D^F^F^M^M.CW11^M^QS..PUT THE NUMBER OF
PAGES
^M^OI 74^M.HE^I#/><^OI056^M^M..MONTH DATE ^M^IKuru Mansion>
<, 1984^QR^OI 6^M^QQ^B>
```
Put the date in a letter and start formatting.

```
t.  <USER 1^M A:WS B:^M><P B:-CPM.PRM^[><^KX>
```
Read a short file only to get the right string to the printer to type under the CP/M.

```
=.  ^QC^PP^QR ^QS.LH11^M^QS.CW10^M^PP^QR^F^F
```
Set the ^PP's for proportional printing.

```
^D.  <^B^KK^A^A^QF^N^MB^M^B^KB^M^QS..NAME THE IDEA & WRITE
IT TO B:SMARTIES.TXT><^M^QS..IDEA ><^M^I^QB^N^QS..READ
B:SMARTIES.TXT^M>
<^KRB:SMARTIES.TXT^M^KB^M^KW B:SMARTIES.TXT^MY^M^KY^QV>
```
Read your bright heurekas to the genial scrapfile.

```
^E.  <^K1^KB^D^QA.^M^M^M^D><^KK^D^QA.^M^M^M^D^KV^KH^E
^E^B>
```
Change the order of two sentences.

```
^F.  ^KB^F^KK^F^KV^KH^A
```
Change the order of two subsequent words.

```
..  <^QD.^B^A^S><^I^I^I^I^I^I.>
```
To get nice proportional spacing even in one-word-lines: this puts an extra point on that orphan line and formats the line, then moves the point outside the right margin.

```
w.  ^M^N^T^PX^PBm^PHe m^PHe^PX^PB
```
Write two squares in the beginning of the sentence.

```
r.  REDO^M
```
Just an OK CP/M command for redoing the former command.

```
P.  <A:PIP C:=A:*.*><[G><OR^M>

p.  <A:PIP c:=b:*.*><[g><OR^M>

L.  <A:PIP A:=C:*.*><[G><OR^M>

l.  <A:PIP B:=C:*.*><[G><OR^M>

t.  <A:PIP CON:=><[Z^M>
```

• • • • • • •

DISCOVER WHAT 10 SOFTWARE INSIDERS ALREADY KNOW!

1. "...a little company that has succeeded over the last five years in giving its customers a lot of value for their money..." **- Richard O'Reilly, syndicated computer columnist**

2. "All the firm's programs are graced with features that the entire industry should be required to provide. Their manuals are the most honest in the industry." **- T. R. Reid, synicated computer columnist**

3. "...the two most important attributes of Software Toolworks' programs: they're priced low, and they work well." **- The Washington Post**

4. "Unlike the software of many publishers these days, none of The Software Toolworks' programs are hobbled by copy protection, nor does the company try to tie up its customers with mumbo-jumbo licensing agreements..." **- The Los Angeles Times "Computer File"**

5. "I don't know how The Software Toolworks stays in business charging such low prices for such nifty products..." **- David Gerrold computer columnist and science fiction author**

6. The Software Toolworks C/80 compiler is "...the best software buy in America..." **- Microsystems**

7. "It would be the best of all possible worlds if some magic diskette could be made that would transform any hardware in such a way as to receive The Software Toolworks' numinous software." **- Wm. F. Buckley, Jr.**

8. "The Software Toolworks has a whole raft of programs that work, and (the company) sells them for reasonable prices. I strongly recommend that you get their catalog." **- Dr. Jerry Pournelle computer columnist "Byte" and science fiction author**

9. "One of the original pioneers in low cost, high quality software, The Software Toolworks publishes over 50 solid products for MS-DOS and CP/M under $60." **- Walt Bilofsky, chairman of The Software Toolworks**

10. "All products are shipped within 24 hours, come with a money back guarantee, and free technical support is available (though you'll hardly need it)." **- Joesph Abrams, president of The Software Toolworks**

SEE US AT THE WEST COAST COMPUTER FAIRE!

MEDIA MASTER PLUS™ - Now you can run most CP/M programs on your IBM PC or compatible *without* additional hardware. *Media Master™* lets you read, write and format over 140 different double density CP/M formats. *ZP/EM™* (included) emulates an 8080 processor to execute CP/M software at machine language level giving you the equivalent of a 1 MHz 8-bit computer. Includes terminal emulation for Osborne, Kaypro, Heath/Zenith and DEC VT52 displays. Requires 192K RAM. For IBM PC and compatibles. - **$59.95**

TOOLWORKS C™ - Ideal for learning this popular programming language, the full featured *TOOLWORKS* C compiler is powerful enough for professional program development. 8-bit CP/M version proven in over 5 years of use to be among most efficient and reliable. MS-DOS version produces relocatable object files (.OBJ), includes complete library source code, supports all version of DOS. An outstanding value. - **$49.95**

TOOLWORKS C MATHPAK™ - Add true 32-bit floating point and signed integer data types to the *TOOLWORKS C* compiler. Speed programming tasks with a complete library of mathmatical functions (source) included. MS-DOS version supports the 8087 for true number-crunching power. - **$29.95**

AIRPORT™ - You are an air traffic controller with radar screen filled with aircraft under your guidance. See how long you can last without cracking. Tougher than the real thing! CP/M and MS-DOS. - **$19.95.**

LISP/80™ - Experiment with artifical intelligence programming! Over 75 LISP functions. Includes source for an editor written in LISP and several demonstration programs. CP/M and MS-DOS. - **$39.95**

READING PROFESSOR™ - Boost your reading speed while increasing comprehension and retention. Self paced lessons show quick improvement with immediate feedback. Includes 48 practice reading passages and other exercises. Developed by skilled educators, this program tracks your progress at reading rates up to 2,500 wpm. Additional libraries available for Junior High, College/Adult, and Professional levels at *$15.95* each. For IBM PC, most CP/M-80 computers. - **$59.95**

COMPUTER CHEF® - Original computerized cookbook and recipe file. Data base of over 70 recipes with space to add your own. Computer selects recipes by ingredient, keyword, or title then displays or prints your selection. Scale recipes by portions or ingredient quantities. CP/M and MS-DOS. - **$29.95**
WOK TALK™ (100 Chinese recipes) - **$29.95**
CHOCOLATE BYTES™ (100 chocolate recipes) - **$29.95**
WHAT'S FOR DINNER™ (200 recipes for use with above programs)- **$19.95**

THE ORIGINAL ADVENTURE™ - Explore the dangerous Colossal Cave for treasures. Endure mystical spells, overcome adversaries. The only official version, uncut, endorsed by its creators, Crowther and Woods. CP/M and MS-DOS - **$19.95**

MYCHESS® - Award-winning world class chess program, featuring nine skill levels and over 850 opening moves. Prints moves and saves games in progress. Outstanding graphics display board on IBM PC and most CP/M computers. - **$34.95**

ELIZA - The pioneering artificial intelligence program, *Eliza* is a "psychiatrist" that carries on a conversation in plain English. Use authentic script, expand it or develop your own. CP/M and MS-DOS. - **$24.95**

The Software Toolworks®

14478 Glorietta Drive Sherman Oaks, CA 91423

TO ORDER CALL:
1-800-223-8665; in CA 1-800-228-8665

U.S. and Canada add $2.00 per order s/h. Overseas orders add $5.00 per order. CA residents add 6.5% sales tax. *Dealer inquiries invited.*

Find and Replace Multiple Print Control Commands in WordStar

by Jean-Christian Auclair

I routinely use two different dot matrix printers, one of which (the Gemini 10X) does not have incremental spacing and thus does not allow for true super/subscripts.

To generate the latter in letter quality mode I have resorted to complex print control codes that leave "emphasized" mode, print compressed super or subscripts and return to emphasized printing. I find the resulting text cleaner and much more pleasant to read than ordinary super or subscript printing in the ascender or descender locations.

On occasion I must pass a WordStar file written with these print controls to a TI 855 dot matrix printer that has true incremental spacing and I must eliminate certain control codes, for example:

H^R^V2^V^Q^EO on the Gemini becomes:
H^V2^VO on the TI 855

To do this rapidly, I attempted to use the FIND and REPLACE function **^QA** in WordStar 3.3 and found that it often refused combinations of print control codes when you attempt to enter them from the keyboard. Programming the control codes in the special function keys eliminates the problem.

I defined the print controls with WINSTALL.COM as follows:

— The **^PT** sets superscripts on; it must be paired.
— The **^PV** sets subscripts on; it must also be paired.
— The **^PQ** sets compressed and super/sub modes off.
— The **^PE** sets the emphasized mode back on.
— The **^PR** sets the compressed mode on.

I defined the Special Function Keys using SETUP.COM as:

0 — **^K^S^Q^P**	(Quick Save and Return)
1 — **LB**	(Log on drive B)
2 — **^P^R^P^V**	(Subscript on, Compressed on)
3 — **^P^V^P^Q^P^E**	(Subscript off Compressed off, Empha on)
4 — 4	
5 — 5	
6 — 6	
7 — 7	
8 — **^P^R^P^T**	(Superscript on, Compressed on)
9 — **^P^T^P^Q^P^E**	(Superscript off, Compressed off, Empha on)

To find and replace a subscript, I invoke **^QA** and at FIND? I press SFK #2: **^2**. At REPLACE? I type **^P^V**; that takes care of the ON toggle. To toggle OFF, at FIND I press SFK #3: **^3** and at REPLACE? **^P^V**. By combining this with the **N** (don't ask) and **G** (global) options the entire file is modified in a jiffy!

• • • • • • •

Columns by WordStar

by Dick Ezzard

Publishing newsletters has got to be the boomingest cottage industry in the country today. Because the question I am asked the most about the use of WordStar is "How do we print in columns?"

Formatting text in columns is a problem with several solutions. There is the simple way, the not-so-simple way and the complicated way. The user who needs columns of text can pick and choose from the available possibilities, according to his own bent and the quality desired for the final product.

Whichever way is selected to make columns, the initial text entry and any follow up editing of the text itself is best handled as a single column. Currently available versions of WordStar (up through 3.3) see two columns on a line as a single line. Editing in the left column will displace material in a column to the right and get the column margins out of whack.

Reforming edited text already in columns might mix stuff from one line's right column with the next line's left column. The best policy is to hold material in an original file as a single column and copy the whole file into another file for page formatting as columns. Always retain the single column format file to fall back on should further editing become necessary.

Simple Simon Columns

The simple solution to make columns is to print single columns and do a paste-up job to get more than one column on the same page. Then present the paste-up to the photocopier machine or the reproduction camera for final reproduction as a page. This has the added benefit of allowing non-textual material such as line art, stats, diagrams, headlines, ruled column lines, etc., to be integrated with the text on the same page.

Don't sneer at the idea of paste-up. The most modern computerized newspapers still use paste-up techniques as the best solution for making up pages. *[Even the **FOGHORN** currently uses paste up! David]*

The reporters write their stories on word processors: yes, the text is filed for computer storage; and yes, the editors hack over the text at terminals.

Typesetting is computerized, too. The selected material is typeset by computer and printed out in single columns. And once a page is made up it may well be captured in a computer file as a full page and transmitted electronically for computer-controlled printing at a remote site.

But the production step of actual page makeup, the integration of columns of text with advertisements and headlines, is still a paste-up process, even at the New York Times which prints all over the country at locations linked instantly by satellite.

So consider paste-up as the quickest, simplest way to attain columns, especially if you have to integrate non-textual material with the columns of text.

However, software is available to make up pages and drive laser printers for medium quality reproduction of text and

⇨

graphics. If desired, the same files can be transmitted to typesetting equipment and reproduced at very high quality. (A new magazine describes these developments in ongoing coverage: ***Desktop Publishing***, Box 5245, Redwood City, CA 94063.)

Another simple solution, available to users of all versions of WordStar, is to run the paper through the printer twice, printing one column the first time, another column the next time. Consider each column a "page" for printing purposes, and have WordStar stop the printing process after each page so that you can refeed the paper. If it is OK to have a fold mark down the printed page, just fold the paper where you want the column margin for the second or subsequent run throughs. This is the hardware solution.

To print the right column without folding the paper, use a software solution. Offset the left margin of the second "page" by putting WordStar's **.po nn** dot command at the top of the second column material and use a sufficient offset to skip over a previously printed left column. Print the left column and have the printing stop between pages, then refeed the paper to print the right column with an offset. It may be necessary to leave one blank line at the top of each "page" so the offsets take effect correctly, but this can be adjusted for when you manually position the paper in the printer.

If one is working with a printer that can roll the paper backwards on command, the paper may be mechanically positioned for printing the second column without pause. From within WordStar, use a combination of the **.sr** (subscript roll) dot command (set for a high number of 48ths of an inch) and the **^PT** printer control command character in the file to roll the paper back at the end of the first column.

Offset the second column (with a **.po** dot command in the file) the right number of spaces and print the second column. Don't forget to increase the page length with a **.pl** dot command because WordStar's print module will think that both columns are sequential on the same page and will continue counting the second column's lines in addition to the lines of the first column.

An incidental benefit of all the above methods of making columns is that those printers capable of microspace justification can be installed to utilize that feature, since WordStar treats each column line as a full line for formatting purposes.

Columns in the Computer

WordStar users fortunate enough to have version 3.0 or higher will be able to use the column block move facility to manually position chunks of material in adjacent columns on the screen and in a disk file preparatory to printout. However they should observe the caveat about keeping as backup a single column version of the text in case the need for additional editing crops up after the pages have been made up. Also, lines formed in two columns by column block moves should not be microspace justified because the entire line (both columns) is treated as one line and microspace justification will throw off the alignment of the second column's left margin.

MailMerge Makes Columns!

The process of forming columns for printing can be mechanized somewhat by my complicated but nifty solution which uses WordStar's MailMerge augmentation to automatically read single column page files and print multicolumns. The multicolumn output can be directed either straight to paper or to an intermediate disk file for later printing to paper after all pages have been formatted up and collected into one file. Although the creation of the appropriate MailMerge command file is somewhat tricky, you only have to struggle with it once.

Like so many computer operations, the first time through is akin to setting up some elaborate magician's stunt because you are creating the tools and apparatus needed for future performance. But once the machinery is in place, the operation becomes easier and easier to repeat.

I don't encourage anyone to set up a MailMerge command file to produce columns for any one-shot operation because it's complicated and requires excruciating care. But once a command file has been devised to suit the exact format of a particular application, it can be used again and again to expedite making up columns.

Alas, although I can produce column output using WordStar 2.26, the results of attempts to duplicate this process on WordStar version 3.3 have been a botched and goofy output, both to disk files and to paper. Evidently the MailMerge facility has been "improved" to the point where it won't get this job done anymore. For one thing, soft spaces produced by justification drive MailMerge 3.3 nuts. "Hardening" all spaces helps but there are still problems with restricted numbers of characters in a line.

If you have WordStar 3.3 you may have to resort to the **^KN** column block move method as your only option. This is disappointing because in theory, the same methodology should work as well (or better, considering that WordStar 3.3 is a later model). Long sigh. Another case of "They don't make 'em the way they used to . . ."

However, WordStar files containing columns which were made up by WordStar 2.26 can be printed by WordStar 3.3. Someone with both versions can make up pages on WordStar 2.26 and then print them by WordStar 3.3 hooked up to a snazzy printer.

Why should anyone go to this kind of trouble? Since the columns made up by a MailMerge 2.26 operation are seen as separate lines for purposes of justification, it is possible to print two columns each separately justified even on daisy wheel letter-quality printers which use microspace justification. (The microspace justification feature distributes space equally between all words to even up a line, rather than putting whole mono-sized spaces between some words.) This contrasts with the unsatisfactory justification results obtained when multiple columns are handled as one line.

Printing with WordStar 3.3 allows a further plus in print quality. With a printer that supports proportional allocation of space to each character, each column can be proportionally printed and justified by invoking WordStar's undocumented proportional print control character, **^P^P**. (This undocumented, unsupported feature of WordStar is said to be present in all versions from WordStar 3.0 on up.)

Now the output closely rivals true typesetting and in some applications will allow the direct preparation of camera-ready pages. Thus some people producing text for reproduction will be able to skip the time-consuming step of getting copy typeset, and cut down on an expense, too.

The Theory Behind MailMerge Column Operations

There are two main concepts to grapple with and pin down to understand what is going on:

1) MailMerge doesn't care what its data is. Lines of text can therefore be configured as data, i.e., variable values, and read in order by an .rv dot command. Once read, variables can be printed out in another order, positioned on the output page by MailMerge variable references (variable names enclosed in ampersands, like "&zipcode&").
2) Positioning of any variable can be to anywhere on a page, and overprint lines can be used to position text line variables in a second or third column, just as names and addresses are positioned across the page in a well-known method for printing address labels two and three across.

So the trick involved is to have MailMerge read a single column file as a collection of variables, with each single line of columnar text being treated as one variable. For example, 110 lines of single column text can be read in by MailMerge as 110 variables and then printed out as two columns of 55 lines. Each "variable" can be printed in the left or the right column as appropriate. To correctly position the right column lines at appropriate aligned positions on the page, WordStar's ability to make overprint lines is exploited.

Preliminaries to Column Operations

To start with, write your text in any convenient form, such as the screen width, then reform it to a single column of appropriate width. Set page breaks to double the normal number of lines in the body of the page. (If it is regular line spacing, there are 55 text lines on a normal page, so doubling results in 110 lines. The page length is **.pl** for total of 110 text lines plus the top and bottom margins). For the moment, postpone questions of justification and hyphenation, so leave the justification and hyphen help features off when reforming text.

This first file is your "raw" file, (like an electronic manuscript) in that any future textual changes should be made in this file. Now make a copy of the portion of this file you want to configure in columns. Mark the block (^KB, ^KK) and write it over to another file (^KW) which will be the data file for a MailMerge operation. (^ means control).

To enable text to be read as data, i.e., variable values, each line must be enclosed in quotation marks so that incidental textual commas are not interpreted by MailMerge as variable delimiters. This can be accomplished by a simple global **^QA** find and replace which finds all line ends (**^N**) and replaces with a string of "**^N**" (quote control-N quote) typed for the replace string.

Manually tidy up the very beginning and end of the file. This is your MailMerge data file which will be read and printed out by a MailMerge formatting command file.

A MailMerge Command File Which Makes Columns

The following listing is an example command file which will read data file PAGE1.DAT and print it in two columns:

```
..Note: Merge file to grab single column of text configured as
..variables and lay it out as two columns.
.df PAGE1.DAT
..(dot commands to setup MailMerge print-time line forming)
.pf on
.oj on
.rm 128
..output page configured for disk file
..reconfigure if printing direct to paper
.pl55
.mt0
.po0
.mb0
..next reads 110 values from data file
.rv a1,a2,a3,a4,a5,a6,a7,a8,a9,a10,a11,a12,a13,a14,a15,a16
.rv a17,a18,a19,a20,a21,a22,a23,a24,a25,a26,a27,a28,a29,a30
.rv a31,a32,a33,a34,a35,a36,a37,a38,a39,a40,a41,a42,a43,a44
.rv a45,a46,a47,a48,a49,a50,a51,a52,a53,a54,a55
..Note: at this point MailMerge has read first 55 lines which
..will constitute column ''a''.
.rv b1,b2,b3,b4,b5,b6,b7,b8,b9,b10,b11,b12,b13,b14,b15,b16
.rv b17,b18,b19,b20,b21,b22,b23,b24,b25,b26,b27,b28,b29,b30,
.rv b31,b32,b33,b34,b35,b36,b37,b38,b39,b40,b41,b42,b43,b44,
.rv b45,b46,b47,b48,b49,b50,b51,b52,b53,b54,b55
..All values read and will be printed out at variable references
..
..Formatting section follows
..Note: each ''a'' variable printed at left margin, then line
..ended with a ^P^M to make overprint line. Each ''b'' variable
..is spaced over to correct column and will print on same
..physical line (though displays on screen on separate line).
..
&a1&* [*indicates ^P^M inserted here on each line]
  [40 spaces to right col. position]  &b1&
&a2&*
                                      &b2&
&a3&*
                                      &b3&
&a4&*
                                      &b4&
&a5&*
                                      &b5&
```

(ETCETERA: 55 variables positioned at left margin for Column a, and 55 variables spaced over on continuation overprint lines to Column b)

```
&a52&
                                      &b52&
&a53&
                                      &b53&
&a54&
                                      &b54&
&a55&
                                      &b55&
```

cont. on page 49

"MAKE YOUR IBM-PC OSBORNE COMPATIBLE"

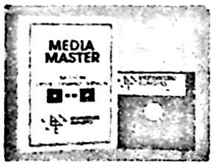
MEDIA MASTER

FORMATS SUPPORTED VERSION	IBM PC	ZENITH Z-100	OSBORNE 1/EXEC	OSBORNE VIXEN	KAYPRO 2/II	KAYPRO 2X, 4, 10	DEC RAINBOW	SANYO 555
Actna (DSDD)	●	●				●		●
Actna (SSDD)	●	●	●	●	●	●	●	●
Avatar TC10 (DSDD)	●	●				●		●
Casio FP 1000 (DSDD)	●	●				●		●
Chameleon CP/M 80	●	●				●		●
Columbia MPC CP/M 80	●	●				●		●
Cromemco CDOS (SSDD)	●	●	●	●	●	●	●	●
Cromemco CDOS (SSSD)			●	●	●	●		
Cromemco w/Int'l Term (DSDD)	●	●				●		●
Cromemco w/Int'l Term (SSDD)	●	●	●	●	●	●	●	●
DEC Rainbow CP/M 86/80							●	
DEC Rainbow MS DOS							●	
DEC Mate II CP/M (SSDD)							●	
DEC VT180 (SSDD)	●	●	●	●	●	●	●	●
Davidge (DSDD)	●	●				●		●
Digilog (DSDD)	●	●				●		●
Epson Multifont (DSDD)	●	●				●		●
Epson QX 10 (DSDD)	●	●				●		●
Facit DTC (SSDD)							●	
Fujitsu Micro 16S (DSDD)	●	●				●		●
Groupil III CP/M (DSDD)	●	●				●		●
Heath w/Magnolia CP/M	●	●	●	●	●	●	●	●
Heath/Zenith Z-DOS (1 xx DSDD)	●	●		●		●		●
Heath/Zenith Z-DOS (1 xx SSDD)	●	●	●	●	●	●	●	●
Heath/Zenith Z-DOS (2 xx DSDD)	●	●		●		●		●
Heath/Zenith Z-DOS (2 xx SSDD)	●	●	●	●	●	●	●	●
Heath/Zenith Z-100 CP/M (DSDD)	●	●						●
Heath/Zenith Z-100 CP/M (SSDD)	●	●	●	●	●	●	●	●
Heath/Zenith Z90 40 track (1k block)	●	●	●	●	●	●	●	●
Heath/Zenith Z90 40 track (2k block)	●	●	●		●	●	●	●
IBM PC CP/M 86 (DSDD)	●	●				●		●
IBM PC CP/M 86 (SSDD)	●	●	●	●	●	●	●	●
IBM PC DOS (1 xx DSDD)	●	●		●		●		●
IBM PC DOS (1 xx SSDD)	●	●	●	●	●	●	●	●
IBM PC DOS (2 xx DSDD)	●	●		●		●		●
IBM PC DOS (2 xx SSDD)	●	●	●	●	●	●	●	●
IDEA Bitelex (SSDD)	●	●	●		●	●	●	●
ISM CP/M (DSDD)	●	●				●		●
Ithaca (SSDD)							●	
Insight Dev IQ 120 (SSDD)	●	●	●		●	●	●	●
Kaypro 10 (DSDD)	●	●				●		●
Kaypro 2 (SSDD)	●	●	●	●	●	●	●	●
Kaypro 4 (DSDD) •	●	●				●		●
LNW 80 (SSDD)	●	●	●	●	●	●	●	●
Lobo MAX 80 (SSDD)	●	●	●	●	●	●	●	●
Lobo MAX 80 512 (SSDD)	●	●	●		●	●	●	●
Micral 9050 CP/M 80 (DSDD)	●	●				●		●
Morrow MD11 (DSDD)	●	●						●
Morrow MD2 (SSDD)	●	●	●	●	●	●	●	●
Morrow MD3 (DSDD)	●	●						●
MacSym 150 (SSDD)							●	
Monroe OC8820 (SSDD)							●	
NCR Decision Mate 5 (DSDD)	●	●				●		●
NEC PC 8001A (DSDD)	●	●				●		●
NEC PC 8001A (SSDD)	●	●	●	●	●	●	●	●
Olympia ETX II (SSDD)	●	●	●		●	●	●	●
Olympia EX100 (DSDD)	●	●				●		●
Osborne 1 (SSDD)	●	●	●	●	●	●	●	●
Osborne 1 (SSSD)			●	●	●	●		
Osborne 4 Vixen (DSDD)	●	●		●		●		●
Osborne Executive (SSDD)	●	●	●	●	●	●	●	●
Osborne Osmosis (SSDD)	●	●	●		●	●	●	●
Otrona (DSDD)	●	●				●		●
Phillips 3000 (SSDD)							●	
PMC Micromate (DSDD)	●	●				●		●
Reynolds & Reynolds (SSDD)	●	●	●		●	●	●	●
Sanyo CP/M (DSDD)	●	●				●		●
Superbrain (DSDD)	●	●				●		●
Superbrain Jr (SSDD)	●	●	●		●	●	●	●
Systel II (SSDD)	●	●	●	●	●	●	●	●
Systel III (DSDD)	●	●				●		●
S-100 40 TRK (SSDD)			●		●	●	●	●
TI Professional CP/M 86 (DSDD)	●	●				●		●
TI Professional CP/M 86 (SSDD)	●	●	●	●	●	●	●	●
TRS 80 Model III FEC CP/M (SSDD)	●	●	●		●	●	●	●
TRS 80 Model III FEC TM5 (SSDD)	●	●	●		●	●	●	●
TRS 80 Model III Hurr Labs (SSDD)	●	●	●		●	●	●	●
TRS 80 Model III Mem Merch (SSDD)	●	●	●	●	●	●	●	●
TRS 80 Model I Omikron CP/M (SSSD)			●	●	●	●		
TRS 80 Model IV CP/M Plus (SSDD)	●	●	●	●	●	●	●	●
TRS 80 Model IV Montezuma Micro (SSDD)	●	●	●		●	●	●	●
Teletek 40 track (SSDD)	●	●	●		●	●	●	●
Teletek 80 track (SSDD)							●	
Toshiba T100 (DSDD)	●	●				●		●
Televideo TurboDOS (DSDD)	●	●				●		●
Televideo 802 CP/M						●		●
Wang Maws CP/M (DSDD)	●	●				●		●
Xerox 820 II (SSDD)	●	●	●	●	●	●	●	●
Xerox 820 II (SSSD)			●	●	●	●		
Zorba 40 track (DSDD) •	●	●				●		●

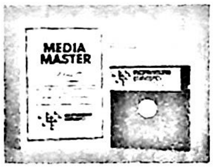
• Requires access to "foreign" computer

Intersecting Concepts Announces 3 Solutions To Solve Your Computer Incompatibility

But will it work on my computer? Yes! Finally, there are three easy ways to exchange information, transfer files, and run CP/M software on MS-DOS machines.



1. MEDIA MASTER is our direct disk-to-disk format conversion program. Already an accepted industry standard, this $39.95 program uses simple screen prompts that lets you read, write and format up to 70 different 5¼" diskettes from CP/M, MS-DOS and PC-DOS operating systems. So if you work on a IBM PCompatible at the office, but use a CP/M computer at home, now you can easily transfer files that would otherwise be "foreign" to your computer's operating system.



2. MEDIA MASTER PLUS goes one step further by converting 8-bit CP/M software to run on 16-bit MS-DOS and PC-DOS machines. This newly released $59.95 product combines our IBM-PC version of Media Master with ZP/EM, a powerful new emulation program. The results are amazing: CP/M programs using 8080 instructions *and* data can be transfered from popular computers like Osborne, Kaypro and Zenith to run on MS-DOS and PC-DOS machines!

3. ACCELER-8/16 is also new and dramatically improves the performance of Media Master Plus by tailoring the CP/M emulation around a NEC V20 microchip. This chip simply replaces the 8088 processor in your MS-DOS computer. Once installed, it'll run your CP/M and MS-DOS software much faster. (Speed improvements are roughly 15% faster in MS-DOS and 350% faster in CP/M!).With ACCELER-8/16 your MS-DOS computer is now CP/M compatible for only $99.95!

The Choice Is Yours

So if you just need to exchange files between different computers using different operating systems, there's Media Master at $39.95.

If you're upgrading to an MS-DOS or PC-DOS machine or already have one but don't want to spend money buying "new" software programs you already own, there's Media Master Plus for $59.95.

And if the execution speed of your CP/M programs is important, there's ACCELER-8/16 for $99.95, which provides a simple hardware and software solution to making your MS-DOS computer CP/M compatible. All three solutions save you money by eliminating expensive modems and communications software.

To Order

To order Media Master, Media Master Plus, or ACCELER-8/16, call 800-824-7888, and ask for operator 251. For additional product and upgrade information contact:

Intersecting Concepts, Inc.,
4573 Heatherglen Ct., Moorpark, CA 93021
or call 805-529-5073.

cont. from page 47

The above is a minimal MailMerge command file for printing columns and is most useful for printing output to disk files. Note that for instructional simplification it is configured to read text which is contained in the specified file "PAGE1.DAT" and would have to be reconfigured to read text from another file. The text in the output file will appear in two columns which on the screen will appear to be on alternating lines due to the display of the overprint lines. But such files printed to paper will print both columns on the same line.

Don't be apprehensive about the number of variables read in at one time. MailMerge (2.26 version) has a good capacity for holding a high number of variables "in its head" for rearrangement. It handles the above 110 line read in with no trouble.

Column-formatted disk files are subject to continued editing. They can be collected into one big file (perhaps intermixing with material in other formats), further edited for output format, and finally printed by WordStar's regular **P** command. Your file PAGE1.DAT for example, could be output to a file PAGE1.PRN which can be examined for correct column formation and held until convenient to print. Or it could be collected into a master document file. It is entirely feasible (with great care) to intermix columned output with page-wide headlines, or to intersperse three column segments with two column segments.

In effect, it is possible to do page composition on WordStar 2.26 by embroidering and building on the output of the above MailMerge command file, or similar command files tailored to different formats.

If deemed necessary, the columns in an outputted disk file can even be edited to appear on the screen the way they will print to paper. Just delete all the lone carriage returns (**^M**) that end the left column text (and cause overprint lines), and delete the excessive spaces between the columns. Then tidy up short lines at the paragraph ends in the left column. Most of this can be done with one global find and replace (use **^QA**).

Tips on Constructing the MailMerge Command File

Constructing the above command file requires taking a lot of care and the easiest way is to wait for one of your friends to do it and then just copy the disk and edit it to your own needs. Spread 'em around, folks. Information is a great commodity. You can give it away and still have it for yourself.

But if you have to build the file from scratch, make sure that each "a" column variable reference is followed immediately by an overprint line ending (by typing **^P^M** or **^P** ↩). That will cause the printer typing mechanism to return to the line beginning without line feeding.

Then make sure that each "b" column variable reference is positioned in the correct column by preceding it with the correct number of space characters. During printing, the printhead will space along passing over the already printed material of the "a" column. This spacing operation is necessary to align the "b" column always at the exact horizontal location on the line. Of course, always position your "b" column spaced over far enough so that column "b" on the overprint line does not print on top of any part of column "a".

Then every "b" column variable reference must be followed by a regular line ending, **^N**, inserted by a strike of the carriage return key.

Actually, making up the file is not that bad if you make judicious use of WordStar's **^QA** find and replace facility. Start by inserting 55 line endings, then find them and replace them with **&b&^N&a&** and build from there.

Details of Use

As stated, files printed to disk can be lightly edited again for further formatting such as setting top margins, page offset, etc., or you can use the equivalent of the above command file to print directly to paper. Be aware that the file as given has minimal page positioning parameters and you will have to figure out your own (.pl, .mt, .mb, .po).

The Quotation Quandary

This is the big bugaboo and frequent mistake. Each data file text line must be encased in quotation marks else stray commas will drive the MailMerge variable scanner crazy. Any time output is garbaged, the first suspect is quotation mark problems, either too few or too many in the data file.

MailMerge recognizes commas and carriage returns as data field delimiters, but lets you use quotes around material which contains a comma to be taken literally. Thus quotes around a field containing a comma neutralizes the data-separating function of the enclosed comma and MailMerge goes by the comma without counting it as closing a variable. In the jargon of the day, the quotation marks are used as data field enclosing characters, and neutralize the enclosed data field delimiters.

The only trouble is there is no easy way to neutralize the neutralizer. ALL quotation marks drop out of data, including any that were a bona fide part of the text. This can play hell with forming up columns that contain a lot of dialogue.

When all quotation marks drop out during merging, they just drop out, not replaced by spaces, so quotation mark elimination screws up justification. Something has to be done.

The options are few. For one, the WordStar program itself can be patched to use a different character as the data field encloser. But this may be incompatible with other data files already in existence and conflicts with the general practice. Besides, that's programming and this article is pitched towards users and attempts to provide solutions accessible within the WordStar operating menus.

Another horrid solution is for the user to accommodate him/herself to the computer and learn to use single quote marks (or some other likely character) in place of the normal quotation marks which have been co-opted for computing purposes. This, of course, is no good if the output is for public consumption.

An expedient to limp along with is to substitute another character for the quotation marks in the text while they are being processed into columns, then swap back after the columns have been formed in a disk file, but before printing. That means one more find and replace operation in the preliminary data file. Find all textual quotation marks and replace them with an accent grave or a tilde or something else little used.

⇨

Then enclose all lines with computing quotation marks. After forming up columns, find the tildes and put the quotation marks back.

How Much Text?

MailMerge will continually process a data file which contains variable values in excess of what is read at one scan. Just remember that the command file as configured above reads 110 lines of text and outputs two side-by-side columns of 55 lines each. If you want a different format or smaller bites of the apple, tinker with the command file. But as it stands it can read files which contain more data than 110 lines by coming back for another bite.

If you read a data file which has blank lines in it, this file will still print 55 lines, printing nothing on the lines which had no data in them. (Such lines in the data file appear as two adjacent quotation marks on a line of their own.) So you can create blank space in your output by leaving appropriate blank lines in your data file. Maybe you will want to leave room for some line art or paste-in headlines, etc.

If you read a data file which is not full of data, you will see the message "Data exhausted. Using null values" on the screen and no real harm is done. But remember that all the "a" variables will be read first so if you are short text it will all be omitted from the "b" column unless you take steps to balance it out.

One way is to shorten both **rv** lists and both sets of variable positioning references by deleting copy in the command file you are using for current operations. Another way is to space out the material by leaving blank lines here and there in the text. Probably the easiest solution is to put blank lines at both the end of column "a" text and the end of column "b" text.

Another Format

The same arrangement will work for triple columns. Just end both the "a" column variable references and the "b"s with an overprint line end and space over the correct number of spaces to position your "c" variable references in another column. Remember, this whole concept started as a variation on the well-known method for printing address labels three across.

Tidying Up Data Files

It is suggested that you enter the text in any convenient form, then edit it into a long single column and split it into double page length chunks for column formatting. Retain the master single column original file for easy editing should the need arise. The data files of text should contain nothing but text (enclosed in quote marks): no dot commands or double dot comments. Experimentation has shown that the MailMerge variable scanner sucks up everything it finds and counts it as a variable.

Justification and Hyphenation at Line Endings

So far, the text you configured in data files has been unjustified, i.e., it appears with a ragged right margin. However, text in columns, especially short columns, appears much neater if justified. Perhaps you have noted that the command file contains a command **.oj on** which the manual states is to cause output to be justified when you turn on the print time formatting command (**.pf on**). Sorry.

Experimentation has shown that text configured as data variables must be justified in the data file in order to appear justified when output. I have been unable to get justified columns out of unjustified "data" lines of text, no matter what combination of dot commands (mixing and matching .pf on, .oj on and off, .ij on and off) were used. Therefore it is again recommended that the original text file (backup) be retained in single column, and kept unjustified for ease in editing and possible reconfiguration.

But if you want justified columns, you must justify the data files. So when reforming text in the data file to the required margin setting (**^B** or **^Q^Q^B** for continuous reformatting), make sure that WordStar's justification feature is on. Do this prior to putting the quotation marks at the beginning and end of each line.

Justifying lines by whole words often leads to a spacey appearance of some short lines. Therefore to pack columns with the most text possible, use the hyphen help feature when justifying. Caution: WordStar uses special codes for the "soft" hyphens inserted during hyphen help; one code for "active" soft hyphens at line ends (to be printed) and another code for inactive soft hyphens which are not printed. Unfortunately, any kind of soft hyphens contained within a variable will not be printed by MailMerge, even those at line ends.

To get hard hyphens into the file during justification/hyphen help operations, be sure to enter **^P-** (control P and a hyphen) but be careful not to enter **^P^-** or a soft hyphen will go in. Soft hyphens will not print during column-making MailMerge.

Alternate Character Sizes

You may designate an alternate character size by appropriate WordStar printer control characters either in the MailMerge command file formatting section or in .PRN files which are the output resulting from running the MailMerge operation. The latter choice is recommended. Print the MailMerge output to a disk file and add the final formatting instructions at that point, including selection of type size. That will keep your column-making MailMerge command file more general in application.

If you do put the character size designation directly in the MailMerge command file, be aware that any resulting disk file output will be somewhat contaminated in appearance. This is because the MailMerge scanner — as a safety measure — turns on and off any printer control characters in effect when it prints every variable.

Therefore if you use control character **^A** to initiate printing in a smaller font, and turn it off by **^N** at the end of the MailMerge command file, every single line of text will show a **^A** and a **^N** when the file is displayed. If you don't like the look of them, WordStar's **^OD** command will turn 'em off.

Of course, if you are printing columns direct to paper, you must put any printer control characters in the MailMerge command file itself to get their effects during printing.

Print Time Line Forming Command Technicalities

The magic word to coax columns out of WordStar 2.26 is **.pf on**. With **.pf** omitted or **.pf off**, only narrow pages (in terms of characters per line) can be assembled. Even with **.pf on**, if the page will exceed some minimal (unresearched exact figure) then the dot command **.rm nn** must be installed in the MailMerge command file with a number which is wider than that required for the total page, both left column, center margin and right column. If **.rm** is not installed or if that number is too low, the output will be screwy, with lines truncated and column "a" intermixed with pieces of column "b".

The .rm dot command is what was left out of MailMerge 3.3. It doesn't work on 3.3 and if left in, the file produces the error message:

***** Invalid Dot Command Ignored**
.rm 128

Yet it seems essential to use the .rm command to free up MailMerge for these operations.

Experimentation shows that installing **.pf on** and a **.rm 128** does not harm pages which will be narrower than 128 columns.

- Rule 1 then, always have **.pf on**, .rm wide.
- Rule 2; if you want the text justified, use **.oj on**, and make sure that the text is pre-justified in the data file. Both conditions must be satisfied to achieve justified columns.
- Rule 3 of print time line forming logic is that text justified in the data file may be printed as unjustified if the dot command pertaining to output justification, **.oj** is off. Evidently this allows MailMerge to drop soft spaces. Therefore, justifying text in the data file gives you your choice of justified or not justified at print time.

Text left unjustified in the data file cannot be upgraded to justified at print time (for making up columns from "data" lines, that is. MailMerge may well achieve justification of inserted boiler plate files and text lines of form letters.)

Improvements

An obvious improvement is to make the name of the data file itself a variable to be prompted for at formatting time and entered from the keyboard. Put an **.av** dot command in the MailMerge file to prompt the operator to enter the data file name for the file which contains the text for the particular page to be formatted.

Someone who does a lot of column formatting will probably want to optimize operations by programming some special function keys (if that facility is available), to take care of the repetitive operations in fewer keystrokes. Massaging the text data files to reform, substitute for quotation marks, justify and hyphenate, and add field enclosing quotes are typical operations for special function keys.

For those who feel competent to go the patching route, a great simplification is available if you patch up a special WordStar COM file to use for text column forming. Replace the designation for both the field delimiting character (the comma) and the field enclosing character (the quotation marks). For replacement, use two hex codes that never show up in the normal text you will be putting into column format.

If you make that patch, then your patched WordStar will just gobble up lines of text as data fields without ever encountering a field delimiter except for the carriage returns. You will never need to enclose the text lines to neutralize the effect of the field delimiter since there will be no delimiters in the file.

Also, all your textual quotation marks will stay in. I now use a patched version of WordStar 2.26, WSCOLUMN.COM, that recognizes a tilde for the field separator and a right curly bracket as the field encloser (hex codes 7Eh and 7Dh) and the only preparation of text as data that's necessary is to form the lines to the right width. Of course, I must remember not to put a tilde or curly bracket in any text to be processed into columns. Except that if a blank line is desired, it must be configured as a variable, most easily done by inserting a tilde.

The patch locations for WordStar 2.26 are:

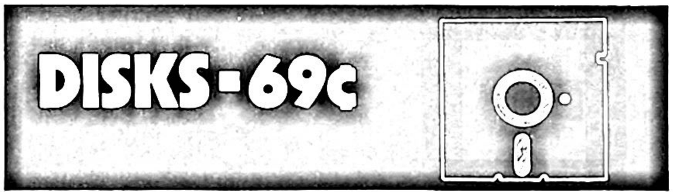
Label	Hex Address	Function
RVELIM	03D8h	Data field delimiter (2Ch, comma)
RVQUOT	03D9h	Data field encloser (22h, quotes)

Conclusion

The following are the plus factors for this method of making up columns by MailMerge when compared to the column block move facility which lets the user manually make up columns in the display:

⇨

ADVERTISEMENT



Foolish to pay more.

Dangerous to pay less.

Blackship Computer Supply has served the wholesale industry as brokers and wholesale merchants since 1980 If you have ever bought a high quality diskette from a reputable merchant who "wasn't allowed to reveal the source" but backed it with a lifetime guarantee the chance was good that they bought it wholesale from Blackship.–NOW YOU CAN BUY WHOLESALE TOO!

- QUALITY MEDIA
- LIFETIME REPLACEMENT GUARANTEE
- HUB RINGS
- TYVEC EPS.
- WRITE PROTECTS

	1–50	51 +
5.25" SSDD	.79	.69
5.25" DSDD	.89	.79
PC FORMATTED	1.09	.99
AT 1.2MB/3.5 1D (Mac)	1.99	CALL

Add $3.00 shipping and handling per 100 Diskettes COD add $1.95. (CA residents add 6.5% sales tax) VISA MC COD

BLACKSHIP
COMPUTER SUPPLY

P.O. Box 883362
San Francisco, CA 94188
In California 415-550-0512
USA orders 800-431-6249
In Canada 403-428-6229

1) Many users don't have a version of WordStar which allows column block moves. Their WordStar version may well support MailMerge column-making.

2) Because of the overprint line carriage returns, this method allows use of microspace justification within the column, thus attaining neater output by printers which are installed to take advantage of that feature.

3) For the same reason, columns on the same printed line can even be proportionally printed without goofing column alignment (providing, of course, that a printer capable of proportional printing is used).

This method to get MailMerge to make up columns is somewhat technical and probably not suited to the beginning user, nor for someone who needs only occasional column format output. Remember that there are simpler methods which take less time.

So if you need columnar text output take your choice of methods:

1) Print single columns and do paste-up to composed pages.

2) Print single columns, then refeed or roll back the paper to put another column on the same page.

3) Use (if available) the column block move facility to manually make up columns on the display. But remember that microspace justification or proportional printing may interfere with column alignment.

4) Have a MailMerge command file read text lines as variables, reading all of column "a", then all of column "b", then printing out in format a, b, a, b, etc., either directly to paper or to a new disk file.

Addendum

For those diehards who are interested in even more details about using MailMerge to form columns, the following is a listing for a command file which will eat up a long single column and spit it out into "sections" of two columns 20 lines long.

```
..SECTIONS.FMT, A merge file to grab a single column of text
..configured as variables and lay it out in two column sections
..Input: 40 lines of text, up to approx. 34 char wide,
..Output: Two columns of 20 lines at positions 1 and 39
..         6 lines (1 inch) space between sections
.av ''Name of input data file to make into columns?'', datafile
..(screen prompts for entry of name of file containing text)
.df &datafile&
..(setup MailMerge print-time line forming)
.pf on
.oj on
.rm 128
..output page configured for disk file
..reconfigure if printing direct to paper
.pl26
.mt0
.po8
.mb6
..
.rv a1,a2,a3,a4,a5,a6,a7,a8,a9,a10,a11,a12,a13,a14,a15,a16
.rv a17,a18,a19,a20
..Note: at this point MailMerge has read first 20 lines which
..will constitute column ''a''.
.rv b1,b2,b3,b4,b5,b6,b7,b8,b9,b10,b11,b12,b13,b14,b15,b16
.rv b17,b18,b19,b20
..all values read and will be printed out at variable
..references
..
..Note: each ''a'' variable printed at left margin, then line
..ended with a ^P^M to make overprint line. Each ''b'' variable
..is spaced over to correct column and will print on same line
&a1&
                                      &b1&
&a2&
                                      &b2&
&a3&
                                      &b3&
&a4&
                                      &b4&
&a5&
                                      &b5&
&a6&
                                      &b6&
&a7&
                                      &b7&
&a8&
                                      &b8&
&a9&
                                      &b9&
&a10&
                                      &b10&
&a11&
                                      &b11&
&a12&
                                      &b12&
&a13&
                                      &b13&
&a14&
                                      &b14&
&a15&
                                      &b15&
&a16&
                                      &b16&
&a17&
                                      &b17&
&a18&
                                      &b18&
&a19&
                                      &b19&
&a20&
                                      &b20&
```

• • • • • • •

RUN THE NUMBERS

All about spreadsheets.

SuperCalc Reading

by Jim Holmes

Having just completed ***Introduction to SuperCalc*** (a program that came free with my computer, that I then paid to upgrade but had never used), I thought I'd share the recommended book list for further study. Now that I've started, I can see why SuperCalc (and programs like it) did so much to popularize the micro. It almost seems magical to watch these spreadsheets "do their thing". I'm just beginning, of course, but our outstanding instructor (Tom Kardos/OKOK: Pasadena, CA) suggests:

D. F. Cobb, G. Cobb, ***SuperCalc SuperModels for Business***: Que (#Q302 007-4); 162 pages with models. Available through Sorcim, $15. Diskette with templates available.

Disk #88250 (ch. 1-4) $39.39. Disk #88350 (ch. 5-7) $39.95.

"Has setup models of many key business packages. Helps organize a business and can provide both cash flow and audits."

R. H. Flast, ***54 SuperCalc Models: Finance, Statistics & Mathematics***: Osborne/McGraw-Hill (#118-5); 244 pages, $15.95. Comb disk (#88222) is $69.95; separate disks (Financial, Statistics and Math) #88212, #88215, and #88218 are $29.95 each.

"Many outstanding templates for title topics, using "standard" formulas. Disk available from Sorcim, saving an entry job."

S. R. Trost, ***Doing Business with SuperCalc Sybex # 0-095***; 244 pages. $14.95 available from Sorcim.

"Provides powerful templates for sales registers, financial statements of all types, budget tools, manufacturing and income tax. Very readable. This book is outstanding for the novice."

Hayden Books (#1153-9) ***Fast Reference Guide to SuperCalc***, R. C. Baker, is handy in learning the commands. It's $3.95. Keyboard templates which list SuperCalc Commands, etc., are available for popular computers, including IBM, Kaypro and Osborne. Templates are usually about $20.

◆ ◆ ◆ ◆ ◆ ◆ ◆

ADVERTISEMENT

When it comes to Osborne service and repair we have the final word...

experience!

Mission Peak Systems has serviced, repaired and upgraded more Osborne 1's and Executives than anyone in the world. Our quality is unsurpassd, our turn-around time is the fastest available and our price is the lowest possible. Simply stated, we know more about Osborne service and products than *anyone, anywhere!* Mission Peak Systems is staffed with ex-Osborne employees who have been servicing Osborne computers since Osborne first introduced them. We have established a network of Dealers and service companies nationwide that are trained, stocked with parts, and have been repairing OCC-1's and Executives since Osborne Computer Corp. started selling them.

So, if you have a problem with your Osborne, *any problem,* we have already *experienced* it.

Besides Osborne Computer repairs Mission Peak offers the following:

- Upgrades - double density, and 80 column
- Hard Disks - 10 megabytes
- Extended Warranties - 90 day and 1 year
- Osbornes and Executives - new and used
- Printers, External Monitors and Cables
- Also announcing the new Osborne *Vixen* for only $1285.00

Call or write us for more information on the dealer nearest you.

MISSION PEAK SYSTEMS

3514 Arden Road, Hayward, CA 94545
415 · 887 · 0756

SuperCalc Printing Tips

by Stephen G. Hill

Embedded Print Control Characters in Spreadsheets

This is a description of how to create a CAL file containing an ASCII character set that can be used to send printer control codes from within spreadsheets. Print control characters placed within SuperCalc spreadsheets can enhance their appearance and facilitate customization of the output. Embedded print control strings will enable you, e.g., to create large type (5cpi) spreadsheet titles with bold face or underlined column and row headings.

The system configuration applicable to this article is an Executive with SuperCalc2, and Okidata 84 and Epson FX-100 printers.

The first step is to create a data file, CHAR.SET, containing the full ASCII character set. This can be done with the following MBASIC program:

```
10 OPEN ''O'', #1, ''CHAR.SET''
20 FOR I = 0 TO 127
30 IF I <> 26 THEN PRINT #1, CHR$(I)
40 NEXT I
50 CLOSE #1
60 END
```

Next, the Super Data Interchange (SDI) program on the SuperCalc disk is used to convert the file CHAR.SET to a CAL file. Load SDI.COM and select option **B** from the menu — `Comma Separated Value file to SuperCalc file`. The file CHAR.SET is a comma separated value file. Give the CAL file the name CHAR.CAL. After the SDI conversion is completed, exit the program and load SuperCalc2.

Load the file CHAR.CAL into the spreadsheet. The ASCII character set will be displayed in column A. (A few of the characters do not appear). To make the character set useful, insert a column ahead of column A, thus moving the ASCII characters to column B. Use column A to label the numerical sequence of the ASCII characters, 0 to 127. This makes it easier to select particular characters.

You are now ready to experiment with sending printer control commands to your printer from a spreadsheet. Starting with an Epson example:

- Copy the ASCII Escape character (number 27) to a cell in column C.
- Put the cell into Edit mode and place the letter E next to the Escape character.
- Hit ↵ (carriage return).

You have now created the printer control code for emphasized mode.

- Move the cursor to the adjacent cell in column D.
- Type a text message, such as "This is a printer test."
- Output the Display of the two cells to the Printer. The text message will be printed with emphasized print.

The same procedure will work with an Okidata. An Okidata can be set to correspondence mode with the print control string Escape 1. To create this print control cell:

- First move the Escape character into a cell in column C.
- Edit it, placing the numeral 1 adjacent to the Escape symbol.
- Place text into the adjacent column D cell and Output the Display of both cells to the Printer.

One shortcoming is the effect of print control characters on the position of normal characters on the same row. A print control character in a row will cause succeeding normal characters in that row to be printed one space to the left. You will need to be creative in placing print control characters and in compensating text alignment required to counteract the offset problem.

Sending Printer Control Codes to an Okidata

KEYBOARD.COM on FOG/EX1.022 (by Eric Meyer) provides the means to overcome the Osborne SuperCalc2 problem that prevents sending certain Setup codes to Okidata printers. Use KEYBOARD.COM to redefine the keyboard as follows:

```
(Ctrl) 1 = ^^        Sets 10 CPI pitch
(Ctrl) 2 = ^\         ''  12 ''   ''
(Ctrl) 3 = ^]         ''  17 ''   ''
```

Save this modified keyboard under file name SC.KBD. Before loading SC2.COM, load this modified keyboard with the command:

```
KEYBOARD SC.KBD
```

To change the printer pitch, enter the Setup option under the **/O** command. Once in Setup, depress the control key and hit one of the three numeric keys. The command will not be echoed on the screen but the print control characters will be sent to the printer.

My version of SC.KBD has one more modification. I reversed the order of the colon and semicolon on their key. The colon is lower case, obviating the nuisance of pressing the caps key when defining a cell range.

Crossfooting Formula

This is a tip for those who use spreadsheets for accounting and financial purposes. With the advent of electronic spreadsheets, the discipline of crossfooting the sum of both rows and columns has been lost by many. The grand total in the lower right hand corner is obtained by either SUM(bottom row) or SUM(rightmost column). The following formula for that lower right total cell will check both rowwise and columnwise addition.

If they do not agree, an ERROR will appear:

```
IF(SUM(rowwise)=SUM(columnwise),SUM(columnwise),1/0)
```

◆ ◆ ◆ ◆ ◆ ◆ ◆

IT'S AMAZING!
IT'S UNIQUE!
IT'S ROMBO!

THE INTERNAL ROMdisk/RAMdisk for the Osborne 1 with 512K Total Memory Capacity

It's a 256K ROMdisk! Use ROMBO's easy-to-run-software to burn your favorite programs directly into ROMBO's programmable permanent memory. Then boot your O1, run it as usual, shut it off, turn it on the next day (or the next year), and your programs are there, ready to run - instantly. Think of it - WordStar, SuperCalc, Modem7, and all your essential utilities - up to 254K - always on-line. And ROMBO may be reprogrammed at any time.

It's a 256K RAMdisk! Run your programs in ROMBO's lightning-fast electronic drive. ROMBO's incredible speed and convenience must be seen to be believed! And ROMBO's software gives you a printer buffer, blinking cursor, and clock.

ROMBO installs in your O1 in minutes. No cutting or soldering are required. ROMBO is compatible with OCC/Nuevo 80 column/DD, Drive C, and Ozrom. (Specify OCC or Nuevo 80 column when ordering.)

ORDER NOW And SAVE $50.00! Introductory Special: ROMBO with installation instructions, software, and documentation is now only $349.00. Retail price will be $399.00. Order as a kit or bring us your O1 and we will install ROMBO free of charge. Optional EPROM eraser - allows you to reprogram permanent memory at any time - $35.00.

Microtech COMPUTER SERVICES

842 Stanton Road, Burlingame, CA 94010
Telephone: (415) 692-1404
For orders only: 1-800-231-6918 (outside of California)

Trademarks: WordStar, SuperCalc, Nuevo, Drive C, and Ozrom.

NAME: ____________________

ADDRESS: ____________________

CITY: ____________ STATE: ________ ZIP: ________

PHONE: ____________ 80 COLUMN: ☐ OCC ☐ Nuevo

ADD $5.00 per order for Shipping and Handling. California residents add applicable sales tax. Sorry, no credit card purchases. We accept personal checks upon clearance. We are happy to ship COD via UPS.

MANAGING DATA

Covers data based management programs.

Benchmarking dBASE II

Ver. 2.43 Vs. Ver. 2.41

by Jerry Boyce

LOGIC Librarian

At a recent dBASE users' group meeting, a member was discussing his new 2.43 version and that he had upgraded because it was faster than the 2.41 version. This was questioned by all and since he wanted me to patch the file to eliminate the full screen of Ashton Tate threats and propaganda at sign on, I agreed to run some tests to compare the speeds.

The test was run on a 228K data base file composed of 10 fields for a total of 125 bytes. They were made on the Osborne 1 with the G2 Systems 780K drives, therefore all work was done on one drive without the delays of accessing the second drive.

The times would be faster with a hard disk and slower if two disks were required. Clean formatted disks were used for each test with the two dBASE COM files placed on the disk first and then adding the data base file. This was done so that the sort or index file being created would immediately follow the prime file and would not be scattered over the disk area.

Figure 1 shows the data base file that was used. Of course the zip code field was consistent at five characters while the number of characters in the 20 character las:name field varied between 4 and 16 characters.

Figure 1

```
Primary use data base
Fld   Name     Type   Width   Dec
001     FIR:NAME     C     020
002     LAS:NAME     C     020
003     ADDRESS      C     020
004     CITY         C     020
005     STATE        C     002
006     ZIP          C     005
007     PCT          C     003
008     PARTY        C     001
009     LET:SAL      C     020
010     HOM:PHON     C     013

** Total **                00125
```

Test Conditions

1. The original indexing was done on the file with only the last six records out of alphabetical order.
2. The indexed file was then copied to the test disk to give a file in alphabetical order. This was then indexed to the zip code and time noted.
3. The ZIP.NDX was deleted and the file was sorted on zip.
4. The file in zip order was then transferred to another disk for the las:name sort and indexing. Files of 300, 500, and 1000 records were copied from the main file and sorted to give the intermediate times, since the sort does not list the status of the sort as the indexing and copying does. Each file was deleted from the disk before the next was copied in order to keep the adjacent space clear for the new file.
5. The locate for the last record in the file was done on the sorted file for the las:name in record #1848.

Table 1 records the times for each test and is stated in hours, minutes, and seconds.

Table 1

OPERATION	NO. OF RECORDS	Ver. 2.41	Ver. 2.43
Orig. INDEX on LAS:NAME with only 6 records out of order	300	0:00:45	0:00:51
	500	0:01:42	0:02:00
	1000	0:04:33	0:05:33
	1300	0:06:14	0:07:30
	1848	0:09:36	0:11:12
Sort on ZIP from LAS:NAME order	1848	1:04:53	1:14:40
Sort on LAS: NAME from zip order	300	0:03:35	0:02:40
	500	0:05:55	0:05:15
	1000	0:25:10	0:29:15
	1848	1:10:20	1:21:35
Index on ZIP from LAS:NAME order	300	0:00:50	0:01:05
	500	0:02:00	0:02:15
	1000	0:05:14	0:05:45
	1300	0:08:15	0:09:00
	1848	0:13:58	0:15:18
Index on LAS: NAME from ZIP order	300	0:01:40	0:01:58
	500	0:02:35	0:03:09
	1000	0:07:27	0:09:59
	1300	0:10:01	0:13:40
	1848	0:21:29	0:30:55
Locate last record in file	1848	0:01:07	0:01:08

Conclusion

Do not make the upgrade to ver. 2.43 if you are expecting to increase the speed of sorts and indexing. There must be other reasons to make the upgrade. I have not worked with it other than to make these benchmark tests. If you plan to verify these times, I suggest that you set aside plenty of time and have a stack of good reading material nearby.

* * *

Indexing in dBASE II

by John Gaudio

Copyright © J. Gaudio Company

Index files are the most powerful but least understood tools available to users of dBASE II. The proper design and use of an index can mean the difference between a straight forward, simple procedure and a real nightmare.

So just what is an index? Simply, it is an ordered list of some field, (e.g., an article title) that tells you the location (e.g., the issue of a publication and page number) of that field and the rest of the information associated with it.

With this in mind, consider the data base example which I've created, called EXAMPLE:

```
USE EXAMPLE
LIST STRUCTURE
STRUCTURE FOR FILE:  EXAMPLE.DBF
NUMBER OF RECORDS:   00006
DATE OF LAST UPDATE: 01/02/85
PRIMARY USE DATABASE
FLD       NAME       TYPE WIDTH   DEC
001       FNAME       C    005
002       LNAME       C    008
003       COMPANY     C    020
004       AMOUNT      N    006    002
005       CONFIRM     C    001
** TOTAL **              00041
```

At this point, the fields are in the same order in which they were originally entered — first record 001, second record 002, etc.:

```
LIST
00001 Jim   Jones   Apple Liquor           22.50
00002 JAMES JOSLINS ANDREWS LIQUOR STORE   33.40
00003 Bill  Jones   Ball Tires            225.00
00004 ADAM  JONES   REPROGRAPHICS          22.50
00005 TIM   SMITH   SMITH AND ASSOCIATES   22.95
00006 tony  bell    bell laboratories     225.47
```

We can create an index file to organize the list in alphabetical order by last name. A first attempt at this might be the command:

```
INDEX ON LNAME TO EXLNAME
00006 RECORDS INDEXED
LIST
00004 ADAM  JONES   REPROGRAPHICS          22.50
00002 JAMES JOSLINS ANDREWS LIQUOR STORE   33.40
00001 Jim   Jones   Apple Liquor           22.50
00003 Bill  Jones   Ball Tires            225.00
00005 TIM   SMITH   SMITH AND ASSOCIATES   22.95
00006 tony  bell    bell laboratories     225.47
```

Notice that this pretty much puts the list in order by last name, but not quite. The problem is in the way which dBASE handles lower case and capital letters — a lower case "a" comes after a capital "Z". Given this, you can see that the list is correctly organized by last name.

We can, however, index on a version of the last name so that both capitalized and lower case names are combined and alphabetically organized. This is done with the ! function in dBASE II which, in this case for the indexing process only, changes names like "bell" into "BELL", and "Jones" into "JONES". Thus the command:

```
INDEX ON !(LNAME) TO EXLNAME
00006 RECORDS INDEXED
LIST
00006 tony  bell    bell laboratories     225.47
00001 Jim   Jones   Apple Liquor           22.50
00003 Bill  Jones   Ball Tires            225.00
00004 ADAM  JONES   REPROGRAPHICS          22.50
00002 JAMES JOSLINS ANDREWS LIQUOR STORE   33.40
00005 TIM   SMITH   SMITH AND ASSOCIATES   22.95
```

yields a more conventional alphabetical list by last name. Note that the last names were capitalized only for the purpose of choosing the order of the indexed file. Within the data base, the last names are still in upper and lower case.

We really don't want Bill Jones coming after Jim Jones, so we must now index on two fields, giving last name the highest priority and first name a lower priority. Consider the command:

```
INDEX ON !(LNAME +FNAME) TO EXLNFN
00006 RECORDS INDEXED
LIST
00006 tony  bell    bell laboratories     225.47
00004 ADAM  JONES   REPROGRAPHICS          22.50
00003 Bill  Jones   Ball Tires            225.00
00001 Jim   Jones   Apple Liquor           22.50
00002 JAMES JOSLINS ANDREWS LIQUOR STORE   33.40
00005 TIM   SMITH   SMITH AND ASSOCIATES   22.95
```

and notice that our alphabetical listing is now correct.

We won't, however, always want to keep our lists in this name order; sometimes we want a list organized according to the amount owed. Consider the command:

```
INDEX ON AMOUNT TO EXAMOUNT
00006 RECORDS INDEXED
LIST
00001 Jim   Jones   Apple Liquor           22.50
00004 ADAM  JONES   REPROGRAPHICS          22.50
00005 TIM   SMITH   SMITH AND ASSOCIATES   22.95
00002 JAMES JOSLINS ANDREWS LIQUOR STORE   33.40
00003 Bill  Jones   Ball Tires            225.00
00006 tony  bell    bell laboratories     225.47
```

You'll notice that the list is now ordered not by name, but by amount. The index command in dBASE II always gives us a list in ascending order, that is from the lowest value to the highest. But what if we wanted a list with the people who owed us the most money on top, so we'd get to them first? How can we create a list in descending order?

Consider the command:

```
INDEX ON 999.99-AMOUNT TO EXDECAMT
00006 RECORDS INDEXED
```

⇨

```
LIST
00006 tony  bell     bell laboratories     225.47
00003 Bill  Jones    Ball Tires            225.00
00002 JAMES JOSLINS  ANDREWS LIQUOR STORE   33.40
00005 TIM   SMITH    SMITH AND ASSOCIATES   22.95
00001 Jim   Jones    Apple Liquor           22.50
00004 ADAM  JONES    REPROGRAPHICS          22.50
```

It worked, but how? It's simple — take the largest number that an amount in your data base could possibly be, (in this case 999.99) and subtract from that maximum possible value the actual amount owed. The result increases as the amount decreases. Thus, by indexing in ascending order on the result, we effectively index in descending order on the amount.

Finally, what if we want to combine character information with numeric information to build an index that gives us a list by amount, for example, but in such a way that two or more people with the same amount will appear in alphabetical order? It seems the command below should work, but if you try it, you'll discover that it yields an error:

```
INDEX ON AMOUNT + !(LNAME+FNAME) TO EXAMLNFN
*** SYNTAX ERROR ***
         ?
INDEX ON AMOUNT + !(LNAME+FNAME) TO EXAMLNFN
CORRECT AND RETRY (Y/N)? Y
CHANGE FROM : AMOUNT
CHANGE TO   : STR(AMOUNT,6,2)
INDEX ON STR(AMOUNT,6,2) + !(LNAME+FNAME) TO
EXAMLNFN
MORE CORRECTIONS (Y/N)? N

00006 RECORDS INDEXED
LIST
00004  ADAM  JONES    REPROGRAPHICS          22.50
00001  Jim   Jones    Apple Liquor           22.50
00005  TIM   SMITH    SMITH AND ASSOCIATES   22.95
00002  JAMES JOSLINS  ANDREWS LIQUOR STORE   33.40
00003  Bill  Jones    Ball Tires            225.00
00006  tony  bell     bell laboratories     225.47
```

We correct that error by changing the numeric part of the index field to a character type through use of the STR or STRING function. dBASE won't allow you to simply tie a numeric part to a character part. The STR function changes the amount from a numeric field to a character string. We then combine the two character strings.

* * * * * * *

Tongue in Cheek "Languages"

Some other languages we are sure you didn't know existed!

LITHP

This otherwise unremarkable language is distinguished by the absence of an **S** in its character set. Programmers and users must substitute **TH**. LITHP is said to useful for prothething lithth. This language was developed in San Francisco.

* * * * * * *

PROGRAMMER'S

Handy items when working with the language of your choice.

TOOLBOX

C/80 Tips

by Author Unknown

This file contains miscellaneous programming notes for C/80 and the comments are aimed at various types of users.

1) General users:

Throughout the source files, **type short** is preferred to **type int** because short is slightly more portable than int. Also, **type double** is preferred to **type float** because compilers try to promote float to double anyway.

2) Osborne users:

In case your manual doesn't mention it, when editing files:

- a) To get left brace (¦), type ^, (control comma)
- b) To get right brace (¦), type ^. (control period)
- c) To get tilde () (pronounced TEEL-day), type ^/ (control slash)

3) Non-C/80 users:

By way of explaining the C/80 **#include**'s and **#define**'s — **fprintf.c** has the source code for all the "print" functions. If **floats** or **longs** are not used in the source file, the #include will be preceded by **#define NOFLOAT 1** or **#define NOLONG 1**, respectively.

- a) **scanf.c** has the source code for the **scan** functions. If floats or longs are used in the source file, the #include will be preceded by **#define FLONG 1**.
- b) **seek.c** has the source code for those functions used in randomly accessing mass storage.
- c) **command.c** has the source code used for unraveling CP/M wild card designators, * and ?, in the command line tail.
- d) **exec.c** has the source code used for passing control from the end of one command file to the beginning of another command file (chaining).
- e) **stdlib.c** has the source code for many, non-floating-point functions of the standard **C** library. Because of the way this file has been implemented, it must be #included at the end of the source file.
- f) **mathlib.c** has the source code for many, floating-point functions of the standard **C** library. Because of the way this file has been implemented, it must be #included at the end of the source file.

4) C/80 users:

- a) An Osborne 1 computer, with double density option was used in generating the source files. The following disk configuration was used:

  i) c.com, as.com, header.h, fprintf.c, scanf.c, command.c, seek.c, exec.c, stdlib.c, mathlib.c, one file group (see START^H.ERE file for file groups)
  ii) clibrary.asm, floatlib.asm, lgfltlib.asm, longlib.asm, cconfig.com

b) The Mathpak version of cconfig.com was used to configure a:c.com as follows:

option A — symbol table size increased to 500
option D — macro table size increased to 1000
option L — floats and longs changed to AVAILABLE
option M — device for library files changed to B:

c) If, when miscfcns.com executes, itoa() reverses the digits of it's argument, change the last part of the source code for itoa() in stdlib.c to read as follows:

```
/* reverse string in place */
while (q < --p) {c = *q; *q++ = *p; *p = c: }
```

d) If c80pecul.c compiles but does not assemble, using as.com, change the following labels throughout the exec.c file:

Old Label	New Label
x?fcb##	x_fcb
h@##	h.
x?fcb	x_fcb
h@	h.
NAM@U##	NAM.U

e) Because the line:

```
#include "stdlib.c"
```

occurs at the bottom of both command.c and c80pecul.c, and because the command.c file is included in the c80pecul.c file, the line must be either commented out or deleted from command.c before c80pecul.c is compiled. Otherwise stdlib.c will get included twice.

• • • • • • •

The Shell Sort

by Carl Tenning

While machine language sorts are generally the fastest, it is sometimes useful to have a sort routine in MBASIC. The SWAP function in MBASIC can help speed up the sort. The best way to sort a list is to copy the list into an array:

```
10 DEFINT N,D,J
20 OPTION BASE 1
30 DIM D$(300)
40 OPEN ''I'',#1,''UNSORT.FIL''
50 FOR N=1 TO 300
60 IF EOF(1) THEN 90
70 LINE INPUT #1,D$(N)
80 NEXT N
90 NUM=N-1
100 CLOSE #1
```

The file to be sorted, in this case "UNSORT.FIL", is copied into array D$(n). After the above copy routine is finished, the value of NUM is equal to the number of lines in the file. If more than 300 lines are required, then line 30 should be adjusted accordingly.

The following 10 line sort routine is called the SHELL SORT. It is generally faster than the BUBBLE SORT.

```
200 D=NUM\2
210 FOR N=1 TO NUM-D
220 J=N
230 IF D$(J)<=D$(J+D) THEN 270
240 SWAP D$(J),D$(J+D)
250 J=J-D
260 IF J>0 THEN 230
270 NEXT N
280 D=D\2
290 IF D>0 THEN 210
```

To save the sorted list, copy it into a file:

```
300 OPEN ''O'',#1,''SORTED.FIL''
310 FOR N=1 TO NUM
320 PRINT #1,D$(N)
330 NEXT N
340 CLOSE #1
```

This program applies to any file where each line ends with a carriage return, e.g., a WordStar non-document file. It performs the same function as SORT.COM found on the FOG library disk — FOG/UTL.005, but is performed without leaving MBASIC. Both versions, however, sort on the contents of the entire line.

Suppose you want to sort on only one field of the line? This can best be accomplished by sorting on an index array. The index array acts as a pointer to the lines of the file. Suppose that the file to be sorted contains the following fields separated by commas: LAST NAME, FIRST NAME, MIDDLE INITIAL, ADDRESS, CITY, STATE, ZIP. Assume that the sort is to be done by zip code. The following program lines will read the file and set up the index array:

```
10 DEFINT N,D,J,I
20 OPTION BASE 1
30 DIM D$(300),ZIP(300),INDEX(300)
40 OPEN ''I'',#1,''ADDRESS.LST''
50 FOR N=1 TO 300
60 IF EOF(1) THEN 100
70 LINE INPUT #1,D$(N)
80 INDEX(N)=N
90 NEXT N
100 NUM=N-1
110 CLOSE #1
120 OPEN ''I'',#1,''ADDRESS.LST''
130 FOR N=1 TO NUM
140 INPUT #1,L$,F$,M$,ADD$,CITY$,ST$,ZIP
150 NEXT N
160 CLOSE #1
```

This is Carl Tenning's file ADDRESS.LST:

⇨

```
JONES.HENRY.A..1212 ELMWOOD.SEATTLE.WA.98188
SMITH.JOHN.Q..109 S.W. 98th.LYNWOOD.GA.10752
HOPE.MRS. QUENTIN..1542 K STREET.TACOMA.WA.98260
THOMPSON.FRED.S..123 SEAVIEW DR..GIG HARBOR.WA.99221
TINNEY.SAM.E..512 S. 12th Pl..DES MOINES.WA.98188
SAMSON.JERRY.D..111 E. MADISON.SEATTLE.WA.98101
CASSIDY.TOM.NMI.PO BOX 998.POST FALLS.ID.82445
JOHNSON.HARRY.K..19833 S.W. 3rd Ave..ZENITH.WA.98199
```

Next comes the sort, by rearranging the order of the index array. Notice that the array D$(n) containing the original file is not rearranged.

```
200 D=NUM\2
210 FOR N=1 TO NUM-D
220 J=N
230 IF ZIP(INDEX(J))<=ZIP(INDEX(J+D)) THEN 270
240 SWAP INDEX(J).INDEX(J+D)
250 J=J-D
260 IF J>0 THEN 230
270 NEXT N
280 D=D\2
290 IF D>0 THEN 210
```

This is Carl Tenning's file ADDRESS.SRT:

```
SMITH.JOHN.Q..109 S.W. 98th.LYNWOOD.GA.10752
CASSIDY.TOM.NMI.PO BOX 998.POST FALLS.ID.82445
SAMSON.JERRY.D..111 E. MADISON.SEATTLE.WA.98101
JONES.HENRY.A..1212 ELMWOOD.SEATTLE.WA.98188
TINNEY.SAM.E..512 S. 12th Pl..DES MOINES.WA.98188
JOHNSON.HARRY.K..19833 S.W. 3rd Ave..ZENITH.WA.98199
HOPE.MRS. QUENTIN..1542 K STREET.TACOMA.WA.98260
THOMPSON.FRED.S..123 SEAVIEW DR..GIG HARBOR.WA.99221
```

To save the file sorted by ZIP code do the following:

```
300 OPEN ''O''.#1.''ADDRESS.SRT''
310 FOR N=1 TO NUM
320 PRINT #1.D$(INDEX(N))
330 NEXT N
340 CLOSE #1
```

Use the following program to view the sorted file:

```
400 OPEN ''I''.#1.''ADDRESS.SRT''
410 FOR N=1 TO 300
420 IF EOF(1) THEN 450
430 LINE INPUT #1.D$
440 PRINT D$
450 NEXT N
460 CLOSE #1
```

Comments on Shell Sort
by John R. Steding

He writes:

"On sorting (Carl Tenning), I wrote a program — listed below — which you can enter any number of items to be sorted, have the same list sorted [by] both methods (Shell and Bubble) while you time each. I found that the Bubble sort was considerably faster than the Shell Sort, e.g., for 20 items the Bubble Sort takes two seconds, the Shell takes 27-1/2 seconds."

TESTSORT.BAS

[Added are lines 2 and 5 to help save it as it was typed in MBASIC and 135 so that the Shell Sort results would stay on the screen long enough to view.]

```
2 GOTO 10
5 SAVE ''B:TESTSORT.BAS''.A
10 'PROGRAM TO TEST TWO SORTS - TESTSORT.BAS
20 CS$=CHR$(26)
30 PRINT C$:FOR X=1 TO 3:PRINT:NEXT
40 PRINT TAB(10)''INPUT ITEMS TO SORT:''
50 DIM A$(100).B$(100):PRINT
60 FOR X=1 TO 100
70 PRINT TAB(15):X''. :'';:INPUT''''.B$(X):NUM=NUM+1
80 IF B$(X)='''' THEN NUM=NUM-1:GOTO 100
90 NEXT X
100 PRINT:PRINT TAB(5)''WHEN READY TO TIME. TOUCH ANY KEY'';
110 AN$=INKEY$:IF AN$<>'''' THEN PRINT ELSE 110
120 GOSUB 280
130 GOSUB 150
135 PRINT
140 GOTO 500
150 ' SHELL SORT
160 PRINT:PRINT''SHELL SORT: '':PRINT
170 D=NUM/2:FOR X=1 TO NUM:A$(X)=B$(X):NEXT
180 FOR N=1 TO NUM-D:J=N
190 IF A$(J) <=A$(J+D) THEN 230
200 SWAP A$(J).A$(J+D)
210 J=J-D
220 IF J>0 THEN 190
230 NEXT N
240 D=D/2
250 IF D>0 THEN 180
260 GOSUB 460
270 RETURN
280 'BUBBLE SORT
290 PRINT:PRINT''BUBBLE SORT:'':PRINT
300 FOR X=1 TO NUM:A$(X)=B$(X):NEXT
310 M=NUM
320 M=INT(M/2)
330 IF M=0 THEN 440
340 K=NUM-M+1
350 J=0
360 I=J
370 L=I+M
380 IF A$(I) <=A$(L) THEN 420
390 SWAP A$(I).A$(L)
400 I=I-M
410 IF I>0 THEN 370
420 J=J+1
430 IF J>=K THEN 320 ELSE 360
440 GOSUB 460
450 RETURN
460 FOR X=1 TO NUM:PRINT TAB(10);A$(X):NEXT X
470 PRINT:PRINT TAB(10)''TAP ANY KEY TO CONTINUE . . .'';
480 AN$=INKEY$:IF AN$<>'''' THEN PRINT ELSE 480
490 RETURN
```

```
500 'EXIT
510 PRINT CS$:PRINT
520 PRINT TAB(15)''SELECT ONE:''
530 PRINT:PRINT TAB(15)''1. RUN''
540 PRINT TAB(15)''2. SAVE''
550 PRINT TAB(15)''3. LLIST''
560 PRINT TAB(15)''4. RETURN TO CP/M''
570 PRINT TAB(15)''5. END''
580 CH=VAL(INKEY$):IF CH>0 AND CH <6 THEN PRINT ELSE 580
590 IF CH = 1 THEN RUN
600 IF CH = 2 THEN SAVE''TESTSORT.BAS'':GOTO 500
610 IF CH = 3 THEN LLIST
620 IF CH = 4 THEN SYSTEM
630 PRINT CS$:END
```

Carl's Response

Generally, the Bubble Sort is faster only when the initial list is nearly sorted already. Also, 27 seconds sounded excessive for only 20 items. I have a Shell Sort on the Osborne that sorts a list of 200 words in only 23 seconds. The relevant portion from last month's Shell Sort was as follows:

```
170 D=NUM/2
180 FOR N=1 TO NUM-D : J=N
190 IF A$(J)<=A$(J+D) THEN 230
200 SWAP A$(J),A$(J+D)
210 J=J-D
220 IF J>D THEN 190
230 NEXT N
240 D=D/2
250 IF D>0 THEN 180
```

The problem is in line 240 where D is divided by 2. Remember that MBASIC always does long division with the / symbol. The variable D divides the list in two. In the example, D started at 20. The next value of D becomes 10 and then 5. But when 5 is divided by 2 the result is 2.5. What is wanted at this point is integer division so that D becomes 2 instead of 2.5. Line 240 should be D=INT(D/2). This could also be accomplished if D had been declared as an integer with a DEFINT D.

Alternatively, the integer division symbol \ could be used instead of the / symbol. Also, integer division should also be used in line 170. Defining D, J and N as integers as well as using the \ for division also will also speed up the sort.

• • • • • • •

How About a Quick Sort?

by Carl Tenning

The Quicksort is usually quicker than either the Bubble Sort or the Shell Sort. Only when the list to be sorted is already almost in correct order, will the other methods be faster. The Quicksort is contained in the short subroutine of the following program.

```
10 REM . . . Quicksort Demo
20 PRINT CHR$(26);
30 PRINT TAB(17);''QUICKSORT DEMO''
40 PRINT TAB(17);''--------- ----''
50 PRINT : PRINT
60 PRINT ''Running a sort of 64 real numbers''
70 PRINT ''between 0 and 100.''
80 DIM A(128)
85 DEFINT N,L,H,I,J,S
90 A$=''##.####  ##.####  ##.####  ##.####''
100 FOR N=0 TO 63
110 A(N)=100*RND
120 NEXT
130 PRINT
140 PRINT ''Takes approx. 7 seconds''
150 PRINT
160 N=63
170 L=0 : H=N : S=N+1
180 GOSUB 9000
190 FOR N=0 TO 15
200 PRINT USING A$;A(N),A(N+16),A(N+32),A(N+48)
210 NEXT
220 PRINT
230 END
9000 REM Quicksort
9010 IF L>=H THEN 9110
9020 X=A((L+H)\2):I=L:J=H
9030 IF A(I)<X THEN I=I+1:GOTO 9030
9040 IF A(J)>X THEN J=J-1:GOTO 9040
9050 IF I<=J THEN SWAP A(I),A(J):I=I+1:J=J-1
9060 IF I<J THEN 9030
9070 A(S)=I:A(S+1)=H
9080 H=J:S=S+2:GOSUB 9000
9090 I=A(S):H=A(S+1)
9100 L=I:S=S+2:GOSUB 9000
9110 S=S-2
9120 RETURN
```

This example program generates a list of 64 random numbers and then does a quicksort in ascending order. Notice that the quicksort subroutine is recursive, i.e., it calls itself. This occurs in both lines 9080 and 9100. The whole process seems kind of complicated, but the length of the sorting program is not too long.

Before making the first GOSUB 9000, the main program must set variables **L**, **H**, and **S**. This is done in line 170. **L** is the point in the list to begin the sort and **H** is where to end the sort. **S** is a pointer to the array where temporary values will be stored. Notice that the array **A(n)** is twice as large as the actual list. The upper half of this array is where the temporary values are stored.

In line 9020, the \ is used instead of the / in order to get integer division. Either will work OK, but the integer division is slightly faster. To see the list before it is sorted, add line 135 as follows:

```
135 GOTO 190
```

*[Reprinted from the May 1985 **TOGGLE**, newsletter of the Tacoma/Seattle Area Osborne User Groups.]*

• • • • • • •

ADVERTISEMENT

Do you use WORDSTAR™?
-Then you need THE ENHANCER!

$35

THE ENHANCER has been getting RAVE reviews . . . Here's why:

- Run the Enhancer just once to install WordStar for almost any printer.
- Run it again if you buy a different printer.

Depending on your printer, you'll get easy access to:

Pica • elite • condensed • italic • bold doublestrike • enlarged pica
enlarged elite • enlarged condensed • strikeout continuous underlining
draft quality • letter quality • 6 lines/inch • 8 lines/inch
subscripts • superscripts

Mix and match type styles within a line.
AND MORE - TO THE LIMITS OF YOUR PRINTER!

Choose from a menu of popular dot-matrix printers including:

Epson MX series • Epson RX series • Epson FX series • Okidata 82/83
Okidata 84 • Okidata 92/93 • Star Gemini • MicroGraph series • Microprism
CITOH • NEC • SCM • Panasonic • Riteman • Call for others

THE ENHANCER will work with most daisy wheel printers, but is especially intended to support modern high quality DOT-MATRIX Printers with all their special features.

WHAT ELSE DOES THE ENHANCER DO?

1. It gives a blinking cursor and automatic log-to-B: drive on *ANY* version of WordStar and *ANY* Osborne computer.
2. It makes WordStar *MUCH FASTER* to load and *MUCH FASTER* to respond when you press a key.
3. It *automatically* switches the arrow keys to WordStar mode on entry and to CP/M mode on exit.
4. It allows you to choose many of the default settings for WordStar in an extremely rapid and easy manner, so that everything will be tailored to your needs.
5. It modifies WordStar to allow *TRUE SIMULTANEOUS* printing and editing.
6. One copy of THE ENHANCER will patch WordStar to drive *ANY* of a long list of printers. Virtually every advanced feature of your printer will be available to you *easily*. No need to buy different ENHANCERS for different printers - they're all built in!
7. THE ENHANCER does its job *QUICKLY* and *EASILY* in less than 45 seconds!
8. Turns off the sign-on logo and copyright notice.
9. THE ENHANCER comes with a two-week money-back trial period. How could you ask for more?

- Special WordStar features installed by THE ENHANCER include:

- Blinking Cursor (on/off/variable rate)
- Superfast Loading and Response Time
- Automatic Right Margin Setting
- Right-justification (on/off)
- "INSERT ON" Prompt visible at column 40
- Page Numbering (on/off)
- Log-to-B: Drive (on/off)
- Simultaneous Printing and Editing
- Insert Mode (on/off)
- Page Break display (on/off)
- Hyphen-Help (on/off)
- Arrow Keys Automatically Set and Reset

Here's what customers are saying about THE ENHANCER:

"Wow! My printer now does everything the manual said it could do. I wish I'd had THE ENHANCER two years ago!"

"I love the blinking cursor and the speedup. All the rest is pure gravy."

"I can't believe it was so easy! Thank you!"

SEE the recent FOGHORN reviews

Installs ANY version of WORDSTAR in 45 seconds
Make as many backup copies as you want.
2-WEEK MONEY-BACK TRIAL PERIOD.

NEW

GRAFGEN $29

Here is a very inexpensive, very complete graphics system for the Osborne 01, The Executive, or the Kaypro (please specify when ordering). You get the ability to design and modify charts, graphs and drawings (including text) with full-screen editing using your computer's graphics character set. There's a full-scale Graphics Programming Language that lets you make slide shows and animated sequences. There are printer drivers for epson-compatible printers. This one even has a pop-up window for command entry!

- Full screen editor
- Online help screen
- Animation with timing capabilities
- GPL programming language
- Keyboard input from GPL

Mixed text and graphics

- Block move/copy/fill
- Load & save screens to disk
- Screen painting feature
- Automated slide shows
- Printer output
- 2-week moneyback trial

NEW

MIX EDITOR $39

This fantastic program is a WordStar-compatible, fully-programmable split-screen text processor. Although it can be used for plain old text processing (like WordStar's Non-Document mode) it is really designed as a programmer's editor. Here's why:

- You can split the screen vertically or horizontally to give you TWO WINDOWS! This means you can work on two different files at once or two parts of the same file. You can copy or move text back and forth between the two windows.
- You dan define macros to carry out complicated programming/editing commands at the touch of a key!
- You can create setup files to let you customize the same program in many different ways (this is really useful if you program in more than one language).
- If you don't like the WordStar key layout you can redefine any command to any keystrokes you like.

Available in Osborne, Kaypro, and IBM format - please specify when ordering.

NEW

MEDSTAT $99

At last-a statistics package to address the needs of the health sciences and the biosciences! This program has been in use at the National Institute of Health and at other government and military medical institutions, but now for the first time it is available to the public. Statistics are based upon standard references in the health sciences and biostatistics, and a page-bibliography is included. You get:

CHI-SQUARE ANALYSIS/CONTINGENCY TABLES
Chi square, Yate's continuity corrected chi square, Mantel-Haenszel chi square and likelihood ratio chi square (all with degrees of freedom and two-tailed p-values). Correlation coefficients include phi, contingency coefficient, and Cramer's V.

SAMPLE SIZE/POWER
Estimates how many prospective or retrospective study subjects (cases and controls) need to be entered into a study to have a good chance of correctly testing the statistical hypothesis. Also calculates the 'power' of a study - the probability that the study will correctly identify a true hypothesis given the number of study subjects to be used.

FISHER'S EXACT TEST
Fisher's exact one- and two-tailed P-values for a two by two table (zero values OK).

SENSITIVITY/SPECIFICITY
Evaluates screening tests to give you the sensitivity, specificity and predictive value of the test. You get positive and negative likelihood values as well as the screening probability ratio.

T-TEST
Paired and pooled T-tests on two sets of data (such as BEFORE and AFTER scores) to give you a T-score, degrees of freedom, and P-value for the comparison.

REGRESSION ANALYSIS
Lists the minimum, maximum and mean for X and Y data. Generates the linear regression equation, with the standard error of estimate and the 95% confidence level limits. Tests for slope not significantly different from zero (using T- or Z- score and one-tailed P-value). Gives the correlation coefficient and R-squared.

STRATIFIED ANALYSIS
Detailed analysis of prospective, retrospective, or matched-pair data stratified to control for confounding factors or to look at cause/effect relationships among various levels of stratification. Gives you crude risks or odds ratios, Mantel-Haenszel risks or odds ratios, Wolff test for homogeneity of strata, Mantel-Haenszel summary test, Mantel-Fleiss test T1 and T2, McNemar's test value and the summary risk difference. Test-based confidence intervals at the 95% level and two-tailed P-values are used.

DESCRIPTIVE STATISTICS
Includes minimum, maximum, range, mean, standard deviation, standard error of the mean, and confidence limits about the mean. For proportions you get binomial confidence limits or Miettinen quadratic bound confidence limits.

P-VALUES T AND Z-SCORES
Calculate Z-score given a one-tailed P-value or calculate one- and two-tailed P-values from Z-score, or chi square value.

SUDDEN! PRODUCTS GROUP

3421 M Street, NW, Suite 1336
Washington, DC 20007
(202) 338-9256

STEM $199

STATISTICAL & ECONOMETRICS for MICROCOMPUTERS

STEM is a full-featured statistical and econometric package that was originally developed for use on DEC computers. Now it is available for you to run on your Osborne microcomputer under CP/M. It is very complete and very easy to use.

WARNING:

STEM is a professional package designed for those who use and understand statistics on a professional level. It is not a "teaching program" nor a toy. In order to make full use of the power of STEM you should be familiar with such concepts as:

- N-way analysis of variance & covariance
- Complex algebraic transformation of data
- Sub-sampling • Plotting • Data sorting • Projections
- Analysis of statistical distributions
- Correlation & multiple regression
- Analysis & correction for auto correlation
- Heteroskedasticity & multicolinearity tests
- Two-stage least squares procedure
- Unequal cell frequencies
- Missing observations & repeated subjects

STEM is comparable to mainframe packages selling for much more. Go ahead - unleash this power on your microcomputer today! Osborne 01 only.

If you've been looking for a linear programming package to run on the Osborne, here it is. Available for a limited time FREE with the purchase of the STEM system.

• • • WORD ROOTS • • • $30

This program is designed to boost your vocabulary skills dramatically through learning to break words into their component parts.

ACTIVE TRACE $65

If it weren't for this fantastic program I wouldn't even bother with BASIC anymore. This set of tools makes BASIC programming a joy! ACTIVE TRACE is something no MBASIC programmer can afford to be without. Speeds debugging, boosts productivity.

CABLES

We have in stock a variety of cables at excellent prices.
In addition to our standard cables, we can provide just about any custom cable you might want.

• *Six-foot keyboard ribbon cable works on OS-1 & Exec.*	$20
• *Ten-foot serial cables drive any standard RS232-C equipment.*	$25
• *Six-foot parallel printer (ribbon) cable will drive any standard centronics-type parallel printer from the Osborne-01.*	$30
• *Six-foot EXECUTIVE parallel printer cable.*	$35
• *Six-foot VIXEN parallel printer cable.*	$35

CompuMagic Presents:

$\$24^{95}$ MANYKEY $\$34^{95}$

This fantastic package lets every program automatically set the arrow keys & function keys. At last you can go from WordStar to Supercalc to dBase II without stopping to reboot! Wonderful for double-density and ESSENTIAL for any hard disk! Specify floppy or hard disk system when ordering.

LOAN AMORTIZATION $\$59^{95}$

Professional package does simple or complicated loan calculations easily and rapidly. Does FHA245's, variable interest rate & multi-level payment loans, balloon payments. Send output to screen or printer.

CMAUTO+ $\$24^{95}$

Makes any program 'Load-N-Run' from any user area on any disk. Create your own AUTOST or EXECST programs. Other programs in this package let you:

- *Use computer as a typewriter*
- *Quickly change screen size*
- *Quickly change serial port*
- *Convert WS files to doublespace*

MAGICDIR $\$24^{95}$

SCREENCOPY captures everything going to the screen and copies it all into a disk file for later use. Records complete sessions for almost any program, allowing easy documentation! Even captures all screen output under MBASIC - I love it!

Four other programs give you sorted directory listings matching more than one file reference on more than one drive, tell you how many files you have and how many directory entries remain available, and even give a sorted directory listing for all files in all user areas at one time.

MOON BUGGY $20

I guarantee you'll be glad you bought this exciting arcade style game. If you don't like it, you get your money back - no questions. (Osborne 01)

GAMES PAK $30

Previously three separate packages - now includes nine games with two simultaneous two-player action games. (Osborne 01)

MEDIA MASTER $39

OSBORNE ↔ IBM
OSBORNE ↔ OTHER CP/M
OSBORNE ↔ TRS 80

This is the cheapest and best of the programs to transfer files between the OSBORNE-01 (Or Executive) and another alien system. You can format, read, and write a staggering variety of alien-type disks. Yes, this does exactly what you're hoping it will do. You can move programs and data from one computer to another "disk-to-disk" with no restrictions. Datafiles and textfiles are 100% compatible from computer to computer. Programs will move across, but will only run if the two computers use the same operating system (CP/M or MS-DOS). Since most 'alien' disk formats are double density, you will need a double density Osborne in order to run this program.

NO CABLES • NO MESS • NO FUSS
MONEY BACK IF NOT COMPLETELY HAPPY

dGRAPH $195

Professional system automatically creates many different graphs from you dBASE II or spreadsheet datafiles or from hand-entered data. Supports autoscaling and many different options. Double density required.

dUTIL $70

The famous utility that effectively adds macro capabilities to dBASE II. Boosts your productivity, aids readability, and more.

QUICKCODE $195

Allows you to create dBASE II applications programs in minutes! Easy screen design, easy database design, easy report design. Rapidly generates good sourcecode for 12 different kinds of dBASE II programs which you can further customize if you wish. Double-density is required.

PUBLIC DOMAIN PAK $99

We've had many requests for our own package of "the best public domain software." If you can't get such software through your local user's group then call for our latest catalog. We list 16 disk sides packed with useful documented public domain software culled from hundreds of disks of junk.

DISKAIDE $45

This programmer's tool lets you examine and change any byte in any file of any kind. Because it is record and field-oriented it is particularly well suited to database debugging. Runs from within MBASIC.

OSBAUD $50

Speeds up your serial port like crazy! You'll get a switch-selectable choice of 16 different rock-steady crystal-controlled baud rates from 110 baud all the way up to 19,200 baud. Installation requires making four soldered connections and cutting one trace.

OSDEX $9

This is the comprehensive cross-index to the Osborne-01 blue manual that should have come with your computer in the first place (but didn't). With this index you can instantly find that information you always suspected was in there somewhere. You need this!

REMBRANDT $79

Fantastic graphics package squeezes every last drop of graphics power out of your Osborne (specify 0-1 or EXEC).

- Full-screen graphics editor allows you to create, edit, and save screen images.
- Create bar charts, pie charts, and X-Y scatterplots from hand-entered data or from external datafiles (WordStar, SuperCalc, Mbasic, Dbase II, etc.)
- Produce electronic slideshows of your pictures and graphs.

KEYBOARD OVERLAYS $17 ea.

These plastic overlays live on your OS-1 or Executive keyboard and provide a handy reference source for the hundreds of software commands you need to use. They are available for WordStar, SuperCalc, cBASE II, and MBASIC. Blue case only.

MONITOR ADAPTOR $27

This monitor adaptor allows your old 52-column Osborne to drive any standard external monitor. Excellent quality.

SWITCHBOXES

Good-quality serial and parallel switchboxes at an unbeatable price! Switch between two or even three peripherals at the push of a button, or connect two or three computers to the same printer or modem! I love mine!

• Serial AB (2-way)	$ 59
• Serial ABC (3-way)	$ 99
• Parallel AB (2-way)	$ 79
• Parallel ABC (3-way)	$109

TYPE-RITER $39

LEARN TO TYPE! with this fantastic new program that smoothly and easily guides you from novice to expert typist. Special features allow use by teachers in the classroom, too!

TWO WEEK MONEY-BACK GUARANTEE

TURBO PASCAL vers 3.0 $65

YOU'VE HEARD ABOUT IT - NOW TRY IT. I give this my personal 5-star rating 'cause it's easier to use than MBASIC, and lots more powerful.

TURBO COMBINATION PAK $139

You'll get the full Pascal system as above, plus a "toolbox" of handy sourcecode for sorting, installing terminals, indexing, and more. You also get the TUTOR-ON-A-DISK to lead you step by step through the Turbo Pascal system.

HIGHLY RECOMMENDED.

IBM COMPUTER STUFF

We stock IBM format software, including versions of MEDIA MASTER, dGRAPH, dUTIL, QUICKCODE, TURBO PASCAL, SIDEKICK, and the full series of POP-UPS.

DESOLATION $29

A hotshot graphics game available for the Osborne 01 and Executive computers. DESOLATION lets you maneuver your ship through more than 50 scrolling graphic screens of threatening enemy attacks. Comes with a joystick adaptor, too!

BLOCKADE $20

Another fancy arcade game by the same programmers who conjured up DESOLATION.

C/80 COMPILER $49

This fast, efficient C compiler is widely regarded as one of the world's BEST software buys. If you need super precision "floats and longs", transcendental functions and an I/O library, then you should also order the optional C-80 MATHPAK at $24.

SEND FOR OUR FREE CATALOG

ORDER FORM

Qty.	Item	Price Ext
____	MOON BUGGY	$ 20.00
____	THE ENHANCER	$ 35.00
____	MEDIA MASTER	$ 39.00
____	WORD ROOTS	$ 30.00
____	STEM	$199.00
____	MANYKEY	$ 24.95
____	MANYKEY(hard disk)	$ 34.95
____	CMAUTO+	$ 24.95
____	LOAN AMORTIZITATION	$ 59.95
____	MAGICDIR	$ 24.95
____	ACTIVE TRACE	$ 65.00
____	PUBLIC DOMAIN(pak)	$ 99.00
____	GAMES PAK	$ 30.00
____	REMBRANDT	$ 79.00
____	DISKAIDE	$ 45.00
____	QUICKCODE	$195.00
____	dGRAPH	$195.00
____	dUTIL	$ 70.00
____	OSDEX	$ 9.00
____	KEYBOARD CABLE	$ 20.00
____	EXTRA LENGTH(per foot)	$ 2.00
____	PARALLEL PRINTER CABLE	$ 30.00
____	EXEC PARALLEL CABLE	$ 35.00
____	VIXEN PARALLEL CABLE	$ 35.00
____	SERIAL PRINTER CABLE	$ 25.00
____	SERIAL MODEM CABLE	$ 25.00
____	KEYBOARD OVERLAYS(each)	$ 17.00
____	CVA-1 MONITOR ADAPTOR	$ 27.00
____	OSBAUD	$ 50.00
____	TYPE-RITER	$ 39.00
____	TURBO PASCAL	$ 65.00
____	TURBO COMBINATION PAK	$139.00
____	IBM COMPUTER STUFF	CALL
____	DESOLATION	$ 29.00
____	BLOCKADE	$ 20.00
____	C.80 COMPILER	$ 49.00
____	SWITCHBOXES (serial AB)	$ 59.00
____	SWITCHBOXES (serial ABC)	$ 99.00
____	SWITCHBOXES (parallel AB)	$ 79.00
____	SWITCHBOXES (parallel ABC)	$109.00
____	MEDSTAT	$ 99.00
____	MIX EDITOR	$ 39.00
____	GRAFGEN	$ 29.00

SUBTOTAL	$ ____
Shipping and handling ($3.00)	$ ____
6% TAX (D.C Residents only)	$ ____
TOTAL	$ ____

Sorry, no charge cards. Send cheque to:

SUDDEN! PRODUCTS GROUP
3421 M Street, NW, Suite 1336
Washington, DC 20007
(202) 338-9256

On the Blink

by Jim Cooke

I liked the blinking text on page 14 of the November 1984 ***FOGHORN***. Granted it gives a nice rolling blink, but that's a lot of typing. If all you want is a blink and you are using the simple subroutine for SIMULATE PRINT @, then just add 900-920 and you've got it.

```
10 'BLINK
20 DEFSTR C.D:DEFINT A.B:CS=CHR$(26):PRINT CS:XRT=50:WIDTH XRT
30 C=CHR$(27):CR=CHR$(11):CE=C+CHR$(84):CH=CHR$(30)
40 CMES=''THIS IS BLINKING!'':GOSUB 900
50 END
870 '*****BLINKING OF CMES*****
900 CMES1=STRING$(LEN(CMES).32)
910 FOR A=1 TO 11:XX=2*XRT+XRT/2-LEN(CMES)/2:GOSUB 1000:
915 PRINT CMES;:SWAP CMES.CMES1:NEXT A
920 RETURN
1000 ' ROUTINE TO SIMULATE PRINT @
1010 PRINT CH;:ADOWN=INT(XX/XRT):ACROSS=XX-INT(XX/XRT)*XRT
1020 IF ACROSS()0 THEN FOR XX1=1 TO ADOWN:PRINT CD:NEXT XX1
1030 IF ACROSS()0 THEN FOR XX1=1 TO ACROSS:PRINT SPC(1):
1035 :NEXT XX1
1040 RETURN
```

Note: Use an odd number (like 11) in the FOR/NEXT loop in Line number 910 or the message CMES1 will be left on the screen.

• • • • • • •

On the Use of Control A

by Jim Cooke

When typing a long line of BASIC instructions and noticing an error in the earlier part of the line, I used to go ahead and enter it, and later, go back and EDIT the error. This was especially true if I was in the AUTO mode and didn't want to exit and return.

Occasionally I'd forget the error — of course my computer and BASIC didn't. THEY NEVER DO! Then I discovered the use of **^A** (control A). It is used to enter the EDIT mode on the line presently or previously typed. So when I need a correction earlier in the line, I hit **^A**, make the correction, go to the end of the input, continue with the instruction, hit ↵ (carriage return) for ENTER, and lo and behold I'd still be in AUTO and could continue right ahead.

The other day Alec Colovos and I were talking EDIT and I complained about not being able to change a line number when in the EDIT mode. [Correcting] one line is not worth saving the program in ASCII, then loading WordStar, loading the program in Non-Document mode, changing the line number, then reloading BASIC and going on. Alec apparently read the second half of the ^A function [note] and put it to use.

EDIT a line number, then reENTER it, and before you key in ANYTHING else enter ^A and there is your line of instruction back, less the line number.

Now INSERT the line number you would like it to be and enter it. Go back and type the old line number to destroy the old one. Use LIST and there's the old line in the new place. You didn't need WordStar nor did you have to retype the line!

I also use this to split lines when they get too long. Alec and I hope ^A will become a friend to one and all.

More on ^A

by John Steding

On the use of control A (Jim Cooke): I use the ^A technique in yet another way. If you want to look at the contents of a file used in a program, e.g., to change an entry quickly, you can exit the program (**^C**) then list the line that, in the program, opens a file, hit **^A**↵ and that line will execute (open the file). Then list the line that fields the records, enter **^A**↵, and then Get what you want at will. (Or write your own special field (no line number) and return.)

*[From the January and February 1985 **TOGGLE**, newsletter of the Tacoma-Seattle Area Osborne Users Groups.]*

• • • • • • •

Want to Change Your Subscription?

Each membership in **FOG** entitles the member to a subscription to either the ***FOGHORN*** or the ***FOG+***. You may use the form below to either change your subscription from one to the other or to **add** the second publication to your membership. If you are adding a publication to your membership, you must include a check to cover the prorated subscription. Calculate this by checking your expiration date on this issue and multiplying the number of months remaining by $1.50.

If you are receiving your current publication by First Class Mail, you must also receive the second publication by First Class Mail. Calculate the additional postage charge at one-twelth of the annual charge for each remaining month of your membership.

Send the completed form to:

FOG
P. O. Box 3474
Daly City, CA 94015-0474
United States of America

Membership number: ____________

Name: ____

Change desired: ____________________________________

____

Amount enclosed: ____________

Please write clearly.

• • • • • • •

FOG MEMBER LIBRARY NEWS

Library Notes

by Jack Brown

Listed below are the March FOG Disk Library releases. As with all disks released under the new format, the disks are each approximately 170K is size. When ordering the disks from the FOG office, be sure to specify what format you want. If your format will not hold 170K per disk, you must order two floppies for each disk you want. Thus if your computer uses 90K floppies and you want to order one of the disks from the reorganized library, you would calculate the cost at $8.00 per disk if ordering less than five disks (that's less than ten floppies) or $6.00 per disk if ordering five or more disks. If a format is not specified, we will ship Osborne 1 double density.

Most of the programs and files released this month are brand new programs or new versions of old favorites. In a few cases, I have incorporated programs from the old library so that related programs are grouped together.

The new typeset Library Directory will be released later this quarter. In the interim, a file listing the contents of all releases has been sent (with these disks) to the FOG sysops.

If you find problems with any of these programs, please let me know as soon as possible.

-**FOG/CPM.026**: WordStar utilities

//CPM026	.DOC:	
/FEB/86	. :	
FIND52	.COM:	Search for character strings in files or file groups
FIND52	.DOC:	For use with MAST.CAT or text files
FTNOTE	.COM:	Footnote program for WordStar
FTNOTE14	.DOC:	Allows printing WS documents with page bottom notes
FTNOTE14	.INF:	New features of version 1.4
JUKI	.BAS:	MBASIC program allowing true proportional spacing
JUKI	.DOC:	with Juki 6100 printer
PAIRX	.COM:	Prints page numbers of non-matching control
PAIRX	.DOC:	characters in text files
PSDEMO	.SAM:	Demo text for TI 855 proportional spacing demo
PSDOTCMD	.BAS:	CBASIC source code for TI 855 proportional spacing
PSFORMAT	.BAS:	Main CBASIC TI 855 print formatting program
PSFORMAT	.DOC:	Intro to TI 855 print formatting program
PSJUST	.BAS:	CBASIC source for TI 855 printer program
PSNCLUDE	.BAS:	CBASIC code for PSFORMAT include file
PSRJ	.BAS:	Proportionally-Spaced, Right Justified MBASIC program
PSRJ	.COM:	For Canon AP400 and AP92 interface
PSRJ	.DOC:	But patchable for other printers.
PSVALUES	.LRG:	Include file for PSFORMAT
PSVALUES	.SML:	Include file for PSFORMAT
PSWRAP	.BAS:	Include file for PSFORMAT

-**FOG/CPM.027**: TURBO Pascal programs

//CPM027	.DOC:	
/FEB/86	. :	
GPIB	.COM:	Make the Osborne 1 a IEEE 488 controller
GPIB	.DOC:	Menu driven to select Talker or Listener
GPIB	.PAS:	TURBO Pascal Source code for GPIB
SLIST	.COM:	TURBO Pascal Source lister & Cross-reference utility
SLIST	.DOC:	Documentation for SLIST (source on FOG/CPM.028)
SLISTCTL	.DAT:	SLIST cursor control file
SLISTINS	.COM:	Terminal installation for SLIST
SLISTINS	.DTA:	SLISTINS terminal data file
SLISTINS	.MSG:	SLISTINS help messages
SLISTRSV	.DAT:	SLIST data file
SYSTEM	.DAT:	SLIST terminal data file
TURBO	.DOC:	Five handy utility routines for TURBO programmers
TURBO	.PAS:	(COPY PRINT RENERA DIR ERABAK)
TURBOSAV	.DOC:	This program attempts to salvage the text still
TURBOSAV	.COM:	in memory after a crash from the TURBO editor

-**FOG/CPM.028**: TURBO Pascal programs

//CPM028	.DOC:	
/FEB/86	. :	
CENTER	.FNC:	TURBO function for SLIST
CPM	.PRC:	TURBO Procedure for SLIST
CRT	.PRC:	TURBO Procedure for SLIST
DISKFILE	.FNC:	TURBO function for SLIST
FOGSTORE	.COM:	TURBO Pascal tutorial using a ''Store'' as a demo
FOGSTORE	.DOC:	Explanation of FOGSTORE tutorial
FOGSTORE	.PAS:	Source code for FOGSTORE in TURBO Pascal
GETPIC	.FNC:	TURBO function for SLIST
HEXTOCHR	.FNC:	TURBO function for SLIST
LCRJUST	.FNC:	TURBO function for SLIST
LST	.PRC:	TURBO Procedure for SLIST
MANYCHAR	.FNC:	TURBO function for SLIST
MONEY2	.COM:	Calculates IRA's Savings, or Loan Payments
MONEY2	.DOC:	Brief description of MONEY2
MONEY2	.PAS:	Source code for MONEY2 in TURBO Pascal
PICTURE	.DOC:	Discussion of SAYPIC.FNC and GETPIC.FNC
PICTURE	.PAS:	Demo using SAYPIC & GETPIC
REPLACE	.FNC:	TURBO function for SLIST
SAYBOOL	.FNC:	TURBO function for SLIST
SAYPIC	.FNC:	TURBO function for SLIST
SLIST	.PAS:	Source code for SLIST (on FOG/CPM.027)
SLIST1	.INC:	SLIST include file
SLIST2	.INC:	SLIST include file
SLIST3	.INC:	SLIST include file
SORTS	.COM:	Comparison of different sorting algorithms

➩

SORTS .DOC: Bubble, sount, insert, select, tree, shell, heap.
SORTS .PAS: quick1, quick2 sorts compared in source
SQUEEZE .FNC: TURBO function for SLIST
SYSCONST .CON: SLIST include file
SYSINIT .PRC: TURBO Procedure for SLIST
SYSTYPE .TYP: SLIST include file
SYSVAR .VAR: SLIST include file
TRIM .FNC: TURBO function for SLIST
WAIT .PRC: TURBO Procedure for SLIST

-FOG/CPM.029: Genealogy programs

//CPM029 .DOC:
/FEB/86 . :
EXPLORE .CMD: dBASE II genealogical data base program
EXPLORE1 .CMD: All dBASE files are part of this program
FAMTREE .BAS: MBASIC Family Tree program. Needs some work!
FATHER .NDX:
GEN .DOC: Documentation for EXPLORE
GENLGY .DOC: Intro to GEN.DOC
GHOST .FMT:
GHOST .ZIP:
GHOST .ZPR:
HELPEXP .FMT:
HELPEXP .ZIP:
HELPEXP .ZPR:
HELPEXP2 .FMT:
HELPEXP2 .ZIP:
HELPEXP2 .ZPR:
HELPEXP3 .FMT:
HELPEXP3 .ZIP:
HELPEXP3 .ZPR:
HELPEXP4 .FMT:
HELPEXP4 .ZIP:
HELPEXP4 .ZPR:
LIST .FMT:
LIST .ZIP:
LIST .ZPR:
MOTHER .NDX:
NAME .NDX:
NEWGENEA .BAS: MBASIC Genealogy program set for NEC 8510 printer
NEWINDEX .CMD:
NS .CMD:
PERSONS .DBF:
REF .NDX:
STORIES .DBF:
STORY .CMD:
STORYREF .NDX:
TESTSW .CMD:
TREE .COM: Family Tree program for Osborne 1 or Vixen only
TREE .DOC: Brief instructions for using TREE

-FOG/CPM.030: Programs for Kaypro computers

//CPM030 .DOC:
/FEB/86 . :
AUTOKEYS .COM: Configures Kaypro arrow and number keypad
AUTOKY40 .WS : WS documentation file for AUTOKEYS
CLOCK .C : Reads the internal clock on 4-84 and new 2X
CLOCK .COM: Written in Software Toolworks C80
CLOCK .DOC: Documentation for CLOCK
COLDBOOT .COM: Allows you to 'cold boot' your Kaypro without
COLDBOOT .DOC: shutting off power
CURS-KAY .ASM: Assembler source for CURS-KAY
CURS-KAY .COM: Make the cursor smaller and blink slowly
CURS-KAY .DOC:
CURSOR .COM: Allows you to set cursor blink rate,
CURSOR .DOC: etc. from menu
DB19 .COM: Name/address/phone/mailing database
DB19 .DOC: Prints 1 up labels
DDRAW .COM: General purpose graphics/text utility for '84 models.
DDRAW .DOC: Has line and circle drawing commands
DDRAW .NOT: Note on TPA requirements
DUMP10 .COM: Screen dump for Kaypro 10
DUMP1084 .DOC: Patching information
DUMP24 .COM: Screen dump for Kaypro 4
K4TIME .COM: Allows for time stamping on 4/84
K4TIME .DOC: Documentation for K4TIME
KP-CHARS .COM: Displays screen characters on 4-84, 10, 2-84
KP-CHARS .DOC:
KP4TIME .COM: Display and set real time clock on 4/84
KP4TIME .DOC:
KP4TIME2 .ASM: Source for KP4TIME
SETPAD .COM: Turns off key click and redefines number pad keys
SETPAD10 .WS : WS document file for SETPAD

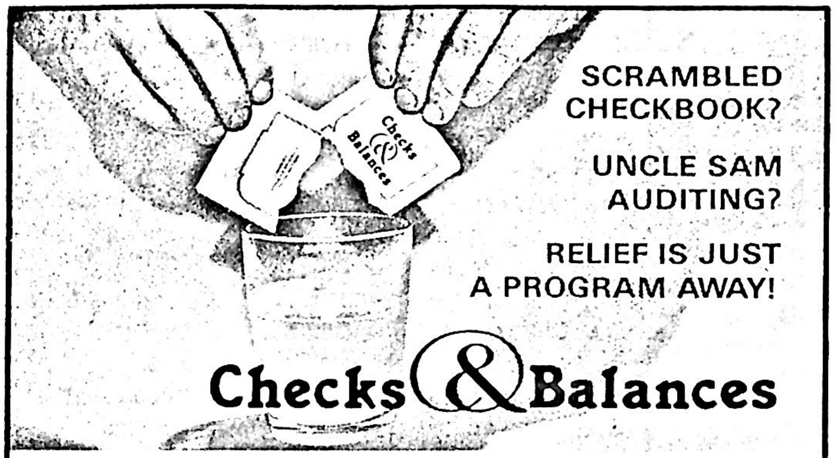
-FOG/CPM.031: 1985 Income Tax Templates for Supercalc 1.12 & up

//CPM .031:
/FEB/86 . :
CALIF .540:
CALIF--A .540:
FORM4562 .85 : Form 4562
PAGE1+A .85 : 1040 page 1 & also Schedule A
PAGE2+G .85 : 1040 page 2 & also Schedule G
SCHED-B .85 : Schedule B
SCHED-D .85 : Schedule D
SCHED-E .85 : Schedule E
TAX85 .NOT: Credit where credit is due
TAXTMPL .DOC: Documentation on these programs

* * * * * * *

ADVERTISEMENT

WIZARD of OsZ™
(818) 709-6969
OSBORNE AUTHORIZED REPAIR CENTER
■ QUALITY SERVICE ■ REASONABLE PRICES
■ FAST TURNAROUND TIME
WE SERVICE: • OSBORNE • CORONA • KAYPRO • IBM • ZORBA & OTHERS
WE ALSO OFFER:
NEW & USED COMPUTERS • SOFTWARE • ACCESSORIES • TRAINING
20630 LASSEN ST., CHATSWORTH, CALIFORNIA 91311



SCRAMBLED CHECKBOOK?

UNCLE SAM AUDITING?

RELIEF IS JUST A PROGRAM AWAY!

Checks & Balances

Checks & Balances will unscramble your checkbook by:
- Keeping a full year at a time
- Reconciling your bank statement
- Flagging missing or duplicated checks
- Writing checks with your computer
- Allowing for automatic teller machine transactions
- Single entry format—fast, easy use for home or small business

Get organized for Uncle Sam
- Enter check or CASH transactions
- Transactions may be divided to multiple accounts
- Track travel and mileage for your deductions
- Reports combining multiple checkbooks
- Net worth, profit/loss, income/expense reports
- Keeps a full year—calendar or fiscal—with no closing at the end of a month. You can enter that shoebox of receipts for the year on April 14 to beat the deadline!
- Generate reports for all or part of the year anytime

Plus it contains a rolodex for names and addresses so you may use window envelopes with checks or print mailing labels, rolodex cards or envelopes.

ONLY $74.95 • 30-day money back guarantee
Not copy protected!

BOWLING LEAGUE SECRETARY

Written by Patrick Lajko of CDE—a bowler with a high of 287, he knows what a league secretary needs. The Secretary computes averages, handicaps (5 different ways) and maintains high, scratch and HDCP games, team standings, and it even tells you what lane to bowl on! Complete printed reports. Enter the scores, it does the rest. Free updates for one year. Not copy protected. For CP/M-80 or MS-DOS and PC-DOS. **Price $89.95**

UNBELIEVABLE PRICES ON IBM-XT COMPATIBLE COMPUTERS WITH SOFTWARE

256K, 2 half-height floppies, keyboard, color graphics card with monochrome monitor, serial, parallel, game ports. **$898.00**

640K, 20 meg hard disk, 2 floppies, keyboard, RGB color monitor, serial, parallel, game ports, 5151 keyboard. **$1995.00**

Ordering Information

Checks & Balances and Bowling Secretary system requirements—CP/M: 60K RAM MS-DOS/PC-DOS: 192K RAM. All require 2 floppies or hard disk, or one floppy with over 500K.

Check, Visa, MC accepted. $3 P&H per order. COD $4 extra. Outside USA $10 per order, no COD. Computers shipped UPS surface rate.

CDE SOFTWARE • 948 Tularosa Drive
Los Angeles, CA 90026 • (213) 661-2031

SPECIAL CHECKS & BALANCES TAX-TIME TRADE-IN!

Have you bought one of those *other* checkbook and accounting packages, only to have it sit unused on your shelf? Well, now CDE Software makes you an offer you can't refuse. We'll give you $15 off the price of Checks & Balances if you send us your old, unused program. That's right—$15 for your Quik-Check, Dollars & Sense, Mini-Ledger or other commercial checkbook or accounting package. (Sorry, no public domain disks accepted for this offer.) New to computerized checkbook keeping? Feel left out? Then return the coupon and we'll give you $5 off Checks & Balances, just to make you feel better. All trade-ins must be the factory original disk, and your order must be postmarked by midnight, April 15, just like that other important piece of mail.

CDE SOFTWARE • 948 Tularosa • LA, CA 90026

☐ Yes, here's my old and worthless program! Let me try Checks & Balances for just $59.95!

☐ Gee, I don't have another program, but I'd love to try Checks & Balances for just $69.95!

I will be using C&B on a ________ computer.

NAME ________

ADDRESS ________

CITY, STATE, ZIP ________

Include $3 postage and handling. Visa, MC, check or MO accepted.

SYSTEMS

Find your computer, printer,
or operating system here.
This is system-specific.

OSBORNE 1

"Care and Feeding" Class, A Hit with Members!

by Jim Holmes

When George Edgar, lead technician for INTERSOFT (Burbank, CA) agreed to do a Preventive Maintenance Class for OKOK (Osborne Komputers Owners' Club in Pasadena), he told me: "Have people bring their questions, gripes and problems".

Those attending that meeting clearly took him at his word. I had to call a halt to questions about 11 pm. If I hadn't, I think they'd be there still!

I'm reluctant to get into the many detailed "fixes" Edgar described. I can tell you he went far beyond prevention, into major repairs. If you aren't reluctant to "open it up and look around" when a problem surfaces in your system, you can get a lot of help from George Edgar.

However, if you're the sort who'd NEVER get involved with the "innards" of your system, Edgar's still your man! You can learn to avoid problems, as well as what to do when they come up.

Edgar spoke of repair stations in general, warning: "Be sure you get a copy of the estimate form. Minimum charges, overtime rates and warranties (parts and labor) should be clearly stated. Fees differ greatly between shops, so 'shop around'."

Before taking your machine in, he suggests, ". . . being able to describe the problem accurately. It can save a lot of [expensive] diagnostic time when you bring in notes, telling how you discovered the problem [what you did just BEFORE], plus things you've TRIED, since".

Taking notes can help to find some problems . . . and to fix them. Say we "noticed a video flicker upon cold boot; it persisted (three RESET ↩'s); with power OFF, we removed EXT VIDEO PLUG, and put it back. CRT display normal; no more video flicker". To isolate and define the problem, first disconnect peripherals. Write down everything you see, hear or do, step-by-step. Did you trash a disk the first time you tried something? Don't use the only backup to check it out. Make three or four copies, (something you won't mind losing, first) before trying it again.

If you think the machine does need service, ask about "optional" things they could do (the PIN 20 fix, etc.), if there's time "left over". Some shops will happily do this sort of extra work, but, by law, must have prior authorization.

When you pick up your machine, try "checking out" repairs BEFORE taking it home. Once home, take time to do a COMPLETE checkout. Be certain all the major programs and peripherals are working properly.

As to prevention, Edgar warned us: "If you want to destroy your drives, just use a commercial head cleaner!" He feels both types (wet or dry) are ". . . unnecessary, in most cases, and VERY damaging to head-load pads. In about two minutes, these pads can wear away completely (they are felt, like a blackboard eraser)".

"Don't set up work stations in the direct sunlight. This may fade your keyboard, and it can cause problems with ultraviolet sensitive EPROMs over time," Edgar told us.

"Installing a fan is a GOOD idea," he went on, "but it should draw air in at the REAR. Some commercial fans available for O-1's draw air in from the FRONT, sucking dust, smoke, etc., into both your drives."

"When the system's not being used, both drive doors should be CLOSED," warns Edgar. "It's best to keep the tan case O-1 open when not being used," he continued, "as stuck keys are likely to result (due to keyboard cable pressure) when the unit is stored closed, especially in hot weather".

The one piece (inside) the keyboard is not a "repairable" item, he told us. If you have a "stuck" key, and want a "last resort fix" before replacing the board, try one quick "shot" of Super Frost Test around the base. This product is available from Radio Shack or other electronics stores.

When traveling, Edgar suggests you keep disks in the drives to protect them. "Use trash disks or blanks," he warns, "to avoid possible loss of data."

IMPORTANT: remove the disks before switching power ON (or OFF), every time, home or away!

"Never flip your drive doors up; they'll break eventually. Use one finger at the top to gently ease the door open," he cautioned.

"Use a Surge Protector, and try to keep your computer circuit separate from other appliances in the home or office," Edgar advises. "It should last quite a while with a switch in the line. Use a low-priced model, and replace it about once a year".

Finally, regarding upgrades, Edgar said: "For double density, the Nuevo upgrade is OK . . . but it doesn't work without the three-layer logic board."

If your O-1's a tan case, you want a Screen-Pac Osborne upgrade. A blue case with the three-layer logic board is identifiable by unplugging the keyboard cable beneath the CRT. Look right below the pins; a bright metal strip indicates a three-layer board.

If you get inside, a three-layer board will be dark blue on at least one side, and opaque. The two-column boards are bright green and translucent. Edgar warned about Osmosis' double density upgrade, saying: "They've shut down, but don't buy any leftovers. They don't work, period."

* * *

OSBORNE 1

Heat Solutions for the Osborne

by Ken Moon

CSOG President

To the owner of an Ozzie complete with an 80-column board and Drive C and surrounded with a custom-made plywood monitor stand, heat dissipation is an obvious concern. After drilling holes top and bottom over the rear grill, I was still unhappy with the cabinet temperature and felt more drastic action was needed.

I assumed that a significant portion of the heat was coming from the internal monitor chassis and CRT. So after some poking around with an ohmmeter, I isolated the +12 volt power supply lead as follows:

* Remove the front case and look for a nine-pin nylon plug near the contrast/brightness controls, the wires which bundle together and lead to the monitor.
* Probe the leads looking for +12 volts DC (on my machine it's the violet lead).
* Cut it near the plug, leaving enough for splicing.

I purchased a Radio Shack "soft touch" SPST push-button switch, drilled a hole for it next to my MODEM plug (there seemed to be no other obvious place due to my Drive C cabling), then crimp-spliced two wires from the switch legs to the two "violet" leads of my cut wire. Check for pinching when you reinstall the case front. Then you're done — you have a monitor switch which kills the entire monitor assembly; CRT filaments and all.

I've run the modification for six months on two machines with no problems, except that the switch off the top couple of lines on my external monitor has a small horizontal "curl". This is not a problem for me but perhaps someone would like to comment on the effect.

The good news is that the machines now run hour after hour without any discernable heat, whether or not the drives are running; and with the push of a switch you've got a true portable again.

Obviously, the mod will void any warranties you have, but please try it . . . it's not nearly as formidable as it sounds, and you'll be amazed at the difference.

*[Or try Alan Chattaway's idea of a piece of paper (February 1986 **FOGHORN**)! Jack]*

• • • • • • •

Want Library Copies?

Please refer to the **FOG MEMBER MERCHANDISE** in this issue or to the ***FOG Membership Information*** brochure sent to all members for information on obtaining copies of the disk library if you are unable to attend meetings of a local group. If you need a file in a hurry and have a modem, check the **FOG FONES** for the number of the **FOG** RBBS-RCP/M systems.

• • • • • • •

OSBORNE EXECUTIVE

Doing It Yourself

by Monroe Chasson

Just about every weekend we put the Executive in the back of the station wagon and take it to our old farmhouse up in Columbia County. We always make good use of it but about two weeks ago we had it all day. I had noticed intermittent jiggling of the monitor picture from side to side, and for a while I had the wavy effect caused by the fan.

I fixed that by relocating the drive power cables to the bottom of the box and did not worry too much about the jiggling picture. This time however the jiggle collapsed on itself leaving a thin vertical line in the middle of the screen.

I remembered a couple of articles in the ***FOGHORN*** in the Spring of '84 on the subject of Executive monitor problems so I was not too concerned. A number of Exec owners here in New York have had their machine lose its picture but with what we all knew about the cold solder joints on the monitor board, resoldering invariably restored the status quo.

I found Jim Switz's discussion of Executive monitor problems. Jim mentioned the possible replacement of transistor Q-103 if all else failed.

I opened up the box and found the guilty party without difficulty. The problem was what to do next. Although I had assembled a couple of Heathkits, 20 or so years ago, I was almost totally out of it in the solid state world.

Almost that is.

A 10-year-old Sharp TV set had gone to TV heaven last June by showing a thin horizontal line across the screen. I knew from the good old days that this meant a loss of vertical output and consultation with Bill Cason our NYOUG president confirmed that it was almost certainly the pair of vertical output transistors which would be attached to a big heat sink.

I found them without difficulty, bought a replacement pair from a commercial parts outlet, unsoldered the old ones and replaced them and lo and behold we have a working TV. Total cost $7 for the transistors (probably half if you are a serviceman).

With this extensive background I felt confident about undertaking the repair of the monitor. I took down the machine by disconnecting the keyboard, turned the box upside down and removed the five Phillips head screws with a 5" long screwdriver.

Carefully turning the box over right side up again I removed the five screws holding on the front panel and pulled off the bright and contrast knobs. I removed the front panel and lifted off the top of the case. The disk drive package can be removed intact by carefully taking off the two large signal connectors. I pushed them off with my thumbs and pulled out the power leads. Then pushing in at the bottom of the assembly will free the plastic retainer and the drives can be put aside.

Incidentally the worst thing that can happen to you is to forget how to put things back. The second worst is to lose a screw. *[The third worst is to lose the screw inside the computer. Ed]*

⇨

The first problem is handled by masking tape labels to mark the connectors with the same symbol on the same side; thus an A on the connector top and an A on the socket it goes into and so on. To remove the threat of lost screws I strongly recommend a small plastic container on the work bench or kitchen table so that there is no question as to where they are.

Well I got down to the cover of the monitor, removed it with a small socket wrench (you can use pliers), and then stopped.

Good grief, how to get at it? The Q-103 transistor is right at the edge of the board and although the board is held in the vertical position, I thought that I might cheat by trying to resolder the leads without removing the board. I did this, it looked a mess, and after powering up again, I discovered that it was no fix.

Jiggling the transistor showed all kinds of intermittent effects and every time I hit it the screen blanked. I decided to replace the transistor which in my set was a BU370. There had been discussion in the ***FOGHORN*** on this transistor.

It was also listed as a Zenith proprietary part 1070. A commercial parts supply in Manhattan introduced me to the Phillips ECG line of replacement transistors. This is a complete system of replacements for most transistors manufactured anywhere in the world. I believe these are available throughout the country as they are used primarily for TV repair. A replacement was listed for the BU370 as ECG379.

Incidentally I was advised that the top number on any solid state device is the date of manufacture. You can recognize it by the number 82, or 83 etc., as part of the number.

I still could not see any easy way to get the board out and tried to replace the transistor with it in place. Again no fix. I settled down to carefully examine the assembly of the machine and realized that if I removed the picture tube, the board would be accessible and could be worked on properly. I wanted to avoid removal of the main circuit board as I felt this could lead to other complications. I did this and found the entire board covered with cold solder joints except for a few shiny patches which were obviously hand repairs after the fact. So much for Zenith sloganeering.

I finally observed that there were cracked connections particularly where wire leads come directly into the board and in particular a five pin connector leads to the Horiz Output transformer and a small choke next to Q-103. Resoldering most of the points in this area and the wire connections have restored the monitor.

As I sit typing this, the monitor is jiggling slightly and I know that inevitably I will have to tear it down once again and resolder every last connection on the board. In fact I am almost certain that replacement of the transistor was probably unnecessary and that proper resoldering in the first place would have taken care of the problem.

It is very satisfying to stare at the guts of the machine and realize that you can work around inside it with a little care and some prudent forethought. I used a 30-Watt soldering iron which I bought at Radio Shack for a few dollars. I also picked up a package of replacement plastic ties, a desoldering tool and a rubber bellows with nozzle for picking up the old solder off the board. A contact cleaner spray and a set of soldering aids consisting of pointed tools and probes with wire brush made up the whole kit and amounted to six or seven dollars in all.

I already owned two other essential items; a spool of 0.040 dia. rosin core 60/40 solder and couple of surgical clamps. A medical supply house or a friendly physician or nurse will get you this last item which is for me the most useful tool for all sorts of repairs around the house. No home should be without them.

More to the point, the financial incentives of doing it yourself are substantial. I thought it might be the next flea market for me to search for a second hand monitor which is really a nuisance to carry around or else a big bill for repairs. No one will lay a finger on any of this kind of thing for less than $100 and then you have to wait to get it back.

What the heck, screw up your courage and at least take it apart. By the time you have done this two or three times you become familiar with it and can feel like a pseudo expert.

I am still keeping my hands off the main circuit board for now, although I do take my shoes and socks off before starting any of this work. Static electricity is no joke. You do have to be prudent.

* * * * * * *

ADVERTISEMENT

HIGHER TECH LOWER COST

CompuPro 10™... the Multi-User Business Computer.

Increased productivity. It's what you buy a computer for. CompuPro 10 is the multi-user system that lets four people outperform a network of personal computers. Network a CompuPro 10, and you have up to 1020 productive users!

And because the CompuPro 10 runs both 8- *and* 16-bit CP/M® software, you have more than 3,000 programs to choose from as you expand your business.

It adds up to one of the lowest cost per user ratios of any high-performance multi-user microcomputer on the market.

Price, performance *and* productivity... discover all of CompuPro 10's many benefits at your local Full Service CompuPro System Center. Where you'll find higher technology at a lower cost.

CompuPro.

©1984 CompuPro
CompuPro 10 is a trademark of CompuPro. CP/M is a registered trademark of Digital Research, Inc.

MENTZER COMPUTER SYSTEMS
1441 Rollins Rd., Burlingame, CA 94010 (415) 340-9363

OSBORNE EXECUTIVE

Connecting a "Dumb" Terminal to the Executive

by Joel Bluming

I have two Executive computers and a Trantor Hard Disk, and will soon be adding a WestWind Web Network. I found that I needed computers in other locations in the same building, but not all to be used at the same time. It occurred to me that I might use a dumb terminal off one of the Executives (leaving two more available slots in the network), and at less cost than another Exec.

I made many calls to find out if the idea was feasible. After many yes's and no's, I decided to purchase a Televideo PT (Personal Terminal) and give it a try.

I chose the PT because of its size. It measures 14"d x 12"w x 10"h, and fits neatly into the space I have. The screen is 9" and green amber in color. The cost was about $550, which is not that much less than an O-1 computer, but I wanted to run on CP/M 3, and the O-1 would be too large for my space.

The terminal arrived with a user's guide, a power cord, and a toll free help number (the most useful accessory as it turned out). I had to make up a Null modem cable and a boot disk. I gathered the following setup information:

1) CABLING — Pins 1 — 8 and 20 wired "straight through" with RS-232 male-pinned plugs, plugged into the PRINTER port of the Executive and the MAIN port of the terminal (crossing pins 2 and 3 would permit using the Modem port in the Exec).

2) SETUP — Run the Executive SETUP program and configure the PRINTER port as follows:

   a) Baud rate — I chose 19.2K, but 9600 probably is better.
   b) Protocol — no protocol
   c) Device — auxin:/auxout:
   d) Initialization string — NONE

3) TERMINAL — After many phone calls and trials and errors, I found the following settings in the PT TERMINAL SETUP PROGRAM (which is built into the TERMINAL ROM and accessed from the PTerminal keyboard). From the Terminal you must first press the FUNCTION KEY called SETUP and then:

   a) Press the FUNCTION KEY called COMM and set:

      i) Baud rate — 19.2K
      ii) Parity — SPACE (no one had heard of it, but it works)
      iii) D.Bits — 7 (note the Exec ref. says 8 — WRONG)
      iv) S.Bits — 1 (Stop Bits)
      v) Mode — FDX (Full Duplex)
      vi) Protocol — DTR

   b) Press the function key called Misc and set:

      i) RETURN — CR (not CRLF as I thought)
      ii) EDIT — DUPLEX
      iii) SCROLL — ON

4) DEVICE — a) DEVICE CONIN:=CRT,PRNTR
   b) DEVICE CONOUT:=CRT,PRNTR

Actually I set DEVICE CONOUT:=PRNTR, but this disables the Executive screen, so don't do this until everything works.

5) SETDEF — SETEF [NOPAGE] because any CPM+ utility that requires a return to page through, such as TYPE, or a large DIR[FULL] will not work through the PT keyboard. Now you will use **^S^Q** (control S, control Q) to scroll from the terminal with these programs.

After setting all of the above (and many frustrating attempts), lo and behold the PT came alive. The keyboard is a bit cramped but OK. Most of the work to be done with the terminal will involve accessing my data base, which is designed on Personal Pearl ®. The INSTALL.DAT file used to run WELCOME to install Pearl for your computer or terminal does not contain the installation codes for this particular terminal. But after investigating (more phone calls) I learned that there are similarities to the Osborne installation.

Open INSTALL.DAT with WordStar's non-document mode, or VDE (public domain text editor), and find the listing for the Osborne 1 (also used for the Exec). The first line of "code" reads as follows:

```
CLR    = ESC 26 0 0 0 ESC )
```

Change it to read:

```
CLR    = ESC * ESC 26 0 ESC )
```

Now run WELCOME on all your Pearl programs (DF,DR,ED,PR,FM). I run Pearl on my hard disk. This configuration will work on both the Executive and the PT since the Executive requires ESC 26 Dec. (27H 0AH) to clear the screen, and the PT requires ESC * (27H 2AH). All other codes are the same for the Exec and the PT.

One peculiarity: sometimes the Exec sends a code to the terminal which causes the terminal to go into the "local edit" mode. Keyboard output goes to the terminal screen instead of the computer. I found that the code is ESC k (lower case k), but I do not know where it comes from yet. The command to reverse this in the terminal is ESC l (lower case l), so I set one function key on the terminal to correct this (a nuisance but only rarely — no harm done).

That's it. When I want to use the remote terminal I use a different boot disk which contains the setup information to configure the printer port for the terminal. I made a new EXECST.COM using EXAUTO.ASM to set all necessary parameters by substituting the following:

```
NEWPRG:   DB   'DEVICE CONIN:=CRT.PRNTR!DEVICE CONOUT:'
          DB   '=PRNTR!SETDEF[NOPAGE]'
```

(Note the use of the "!" to connect commands.)

Save the changes (^KX from WordStar or ESC X from VDE), assemble (MAC EXAUTO), load (HEXCOM EXAUTO) and RENAME EXECST.COM = EXAUTO.COM. Now when I want to use the terminal I turn it on, insert the boot disk and press **RESET⏎**.

⇨

Additional Information

At 19.2K baud there is no noticeable time delay except when scrolling in WordStar. Any program which is machine specific to the Executive will not work on the terminal (e.g., Setup must be run from the Exec BEFORE DEVICE or the system will lock up).

I have not tried every one. NSWEEP will work except for the View function (no way to scroll). I expect that this can be corrected, but I do not have the ASM file. Executive windows do not work as they lock up keys.

The Executive version of VDE will not work, but again I suspect that the proper coding could be set up in the ASM file.

WordStar will work but has to be installed for the terminal. I have the terminal type as Televideo 925/950. This is not perfect and I will have to modify some features. The arrow keys do not work yet.

Once installed properly Personal Pearl works like it was born there.

The Terminal has seven unshifted and seven shifted function keys which can be easily configured, and are similar to IBM function keys. The 25th screen line shows the seven unshifted keys. However the Exec function keys do not work from the Terminal.

The Terminal comes with a User's Guide, and a Programmer's Guide. There is a serial printer port included, and phone input and output jacks to be used with an optional internal modem. (The terminal can be used as a stand-alone unit to access mainframe data bases.) The terminal character set is NOT redefinable (it is in ROM) but there is an alternate set and a graphics set.

I have not tried every possibility yet. I was happy enough just to get it working. I intend using two more of these terminals at other locations, connected to one Exec with a four-way serial switch. Combined with the Web Network ®, hard disk, and three other Execs, it is quite a system.

I would be happy to assist anyone who wants to try this. I can be reached by phone Mon. — Wed. (9am-8pm), and Thurs. (9am-4pm) at (516) 791-2323 (I would call back "collect" if not available).

P.S. Thanks to:

- Yati and Robert at WestWind Computers (Trantor) — Web, Hard Disk.
- Doug at G2 Systems — a terrific quad density upgrade for the Exec.
- Nyla at Pearlsoft — Personal Pearl.
- Lowell at Microtech — INOVA Memory Expansion Board for the Exec.
- Eric at Televideo — Personal Terminal.

for all their expertise and patience.

◆ ◆ ◆ ◆ ◆ ◆ ◆

OSBORNE 1 & DEC RAINBOW

The Ultimate Osborne Upgrade?

by Amer W. Nelson

Now that FOG has announced a publication devoted to the 16 and 32-bit world, I'd like to call your attention to what I think may be the ultimate Osborne upgrade.

When Father Flanagan ran Boy's Town, he had a weakness for orphans and proclaimed that there was no such thing as a bad boy. I have a weakness for orphaned computers and would like to say that there's no such thing as a bad CP/M machine. Especially when it will run 8-bit CP/M-80, 16-bit CP/M-86 **and MS-DOS**!

My latest favorite orphan is a DEC Rainbow B. It's a good value as a stand-alone 16-bit CP/M and MS-DOS computer and it fits in just fine with an Osborne 1 system. How can I call the Rainbow an Osborne upgrade? Easy!

I don't want to put down the ***FOGHORN*** advertisers who have been loyal to our membership and have provided excellent products and service, but look at the prices charged for most Osborne add-ons and then consider the Rainbow . . .

- Do you want a better, more reliable keyboard? You've got it with the Rainbow. It's not just better — it's beautiful!
- Are you thinking about a double density upgrade? The Rainbow has dual quad-density drives which each hold 400K.
- Do you want an 80 column display? The Rainbow gives you a choice between 80 or 132 columns.
- Do you want RAM-drive? The Rainbow comes with MDRIVE which runs under CP/M-86/80 and MS-DOS too.
- Are you tired of the Osborne's five inch display? Take a look at the Rainbow's monitor.

My wife and I acquired our Rainbow through the University of Washington at a real deal price — at that time — April 1985. The good news is that if you look around carefully, you can do just as well today without needing a connection with an educational institution. ***DEC* Professional*** magazine has carried ads in their classified section offering Rainbow B's for well under $2000.

We do use our Rainbow as a stand-alone 16-bit computer running under CP/M-86 or MS-DOS and can also use it as a terminal (connected through a time-share system) with just about any DEC mini or super mini. However, in this article, I want to concentrate on the Rainbow as an adjunct to an existing Osborne system. That being the case, I'll describe our Osborne system and how the Rainbow fits in to make it a real value.

The Osborne system consists of:

- An old tan case O-1 with a serial number so low you'd think I was a personal friend of Adam Osborne. It has the BIOS revision 1.2.1 — which is hardly documented. It has single sided, single density disk drives.

- A CTS modem which fits into the slot below the Drive A and came with Mycroft Lab's MYTERM software — a forerunner to MITE.
- A C. Itoh ProWriter Model 8510A — the parallel version.
- A Trantor 5Mb hard disk unit.
- A home made switch box which allows the O-1 to "talk" to either the ProWriter or Trantor without pulling the 26-pin edge connector away from the Osborne's IEEE port. No, it can't talk to both, which is a BIG drawback.
- A recently acquired Gorilla Banana printer — at $90, it's hard to go too far wrong. I am still in the playing-around mode, but have satisfied myself that I can now print files directly from the Trantor hard disk since it is plugged into the parallel port and the Banana is plugged into the serial port.

Having described our Osborne system, what are the advantages of connecting it with a Rainbow; in other words, where's the synergism?

We really wanted a Rainbow! Unfortunately, it didn't come with a parallel port which would have allowed us to use our ProWriter, but it did come with a communications cable. We were able to purchase communications software so that the Rainbow could send files to the Osborne (and vice versa) for printing at a lower price than a serial printer. We saved space, too. (That was before our Gorilla purchase and it doesn't yet work quite right with the Rainbow.)

We were able to use our old, tried and true Osborne software on the Rainbow — WordStar/MailMerge, SuperCalc and dBASE II. There is a software package called Talisman available from Disco-Tech (cute name; it almost scared me off), now a division of Morton Technologies, PO Box 1659 Santa Rosa, CA 95401; phone (707) 523-1600. It allows the Rainbow to emulate an Osborne. (How's that for a switch?) You can use the Rainbow in terminal mode (see *The CRT Connection*, p. 85 of the July 1985 ***Portable Companion***), or you can pass the applications programs to the Rainbow using a communications link and run them directly.

We didn't have to buy a new modem for the Rainbow. Enough said.

Our Rainbow has 512K of RAM thanks to DEC's 128K memory option module and a 256K chip set — you don't need to buy it from DEC, but you know that! And MDRIVE comes standard. More than enough said.

Is the Rainbow truly an Osborne upgrade? No, not really! It's a computer that will give you entry into the 16-bit world without pushing your Osborne into the closet to gather dust. Your O-1 will still be used on occasion as a adjunct to the Rainbow. You'll not only enjoy the slick keyboard, but you'll get a full display — 80 or 132 columns.

If, like me, you have sunk money into a printer, modem and had disk that work well with the Osborne, you won't have to buy new expensive peripherals for the Rainbow. (With great fear and trepidation I tried passing files from the Rainbow to the Trantor and vice versa — good news; the Trantor did not crash!)

If you don't yet have a hard disk, there's more good news. While DEC is not known for its low price structure, it now has a 5Mb Winchester available for $750 for the Rainbow. For a non-power user, for a small business person, 5Mb may be just enough disk capacity.

Also you won't have to buy lots of new software just to get your new machine to do something — anything. It is possible to make your Osborne plain vanilla software run on the Rainbow, thanks to Talisman. And last, but not least, you'll also have a machine backed by a company that is financially strong.

This article is more than long enough. If there are readers out there with an interest in the Rainbow who'd like to pick my brain regarding a Rainbow/Osborne interface, they can write to me at 12030 36th Ave NE, Seattle, WA 98125. My phone number is (206) 365-5795.

I'll try to develop a comprehensive write-up regarding what I know about communications software, the use of the Trantor hard disk within the system, and Talisman software, which is essential if programs and data are to be satisfactorily transferred between the two machines. (An area I'm still in doubt about is whether I can get my inexpensive Gorilla Banana to work with the Rainbow. Is it inexpensive or is it cheap?)

* * * * * * *

OSBORNE 1

Switching the LPRINT to the Console and Back to the Printer

by Carl Tenning

During program development, programs with LPRINT statements can be a nuisance because each program test run also runs the line printer. The printer cannot be turned off as that causes the whole computer to lock up. While the program could be written to temporarily substitute PRINT statements for LPRINT statements, it would be a tedious editing process to put back the original LPRINT's.

There is an easy solution to this problem. LPRINT statements can be switched to print on the console instead of the line printer by altering the IOBYTE function of CP/M. IOBYTE is a location in CP/M memory reserved for assigning physical devices to logical devices. In MBASIC, the LPRINT statement sends it's output to the logical LIST device. Ordinarily this would be the line printer. But the Osborne 1 has four choices for connecting to the physical LIST device:

1. Screen
2. Serial Port
3. Parallel Port
4. IEEE-488 Port

The following lines in an MBASIC program will switch the LPRINT as noted in the REM:

⇨

```
10 NN% = PEEK(3)
20 POKE 3.NN% AND 63%:   REM switches LPRINT to console
90 POKE 3.NN% :   REM returns LPRINT to line printer
```

Line 10 reads the IOBYTE and saves it in NN%. AND'ing NN% with 63% makes bits 6 and 7 both zero, which is the code for the console (TTY:). This will work whether the printer is serial or parallel (or even IEEE-488, if there are any), because line 90 returns the IOBYTE to it's original status.

Altering the IOBYTE should also allow switching between serial and parallel printers if you have two printers connected to the Osborne 1. The following commands will do this:

```
10 NN%=PEEK(3)
20 POKE 3,(NN% AND 63%)+64%:  REM switches LPRINT to serial
90 POKE 3,(NN% AND 63%)+128%:  REM switches LPRINT to parallel
```

I do not have a serial printer and so have not been able to test this switch. Someone let me know if it works.

*[Reprinted from the December 1984 **TOGGLE**, newsletter of the Tacoma/Seattle Area Osborne User Groups.]*

• • • • • • •

OSBORNE 1 & RADIO SHACK TRS-80 MODEL 100

Interfacing the Model 100 with the Ozzie

by Joe Santangelo

I have a tan Osborne 1 that has been in use since June 1983. It has been updated to DSDD with three drives with Nuevo equipment. I use it mostly with WordStar and SuperCalc2 with an occasional BASIC program.

I am an active amateur radio operator and use, besides voice communications, RTTY (radioteletype), CW (Morse Code), and Packet radio.

I chose not to use the Osborne for any of the amateur radio work and I obtained a Radio Shack TRS-80 Model 100 for this purpose.

I frequently have to take TTY messages on HF and Packet data on VHF radio and need to store them on disk.

This resulted in acquiring an RS-232 switch from WRAM called a PATCHMAN so that I could use the Model 100 as the communications control computer. I can then switch it to any one of the three outputs for UPloading, DOWNloading or FILE transfer.

I set it up as follows:

A — VHF Packet radio;
B — HF RTTY or CW;
C — Osborne.

There is a null modem capability on the WRAM switch but it is not required for these file transfers.

The TRS-80 100 must be in the TELCOM mode and set to 58N1E at 1200 baud to be able to control each of the three outputs.

The software for the radio communications is in the Terminal Node Controllers for switch positions A and B. For switch position C to the Osborne, I made use of the available CP/M STAT and PIP command functions.

Having no interest in generating a program and not being a hacker, I enlisted the aid of a good friend and member of BOG (Boston Osborne Group). He suggested that I could use the TRS-80 100 as the keyboard to control the Osborne for these transfer functions by using the STAT command.

I then formatted and SYSGENed a fresh disk in Drive A with WordStar, PIP and a few other .COM files and labeled the disk **FILEXFR.001**.

The disk must be SETUP for SERIAL and 1200 baud.

I also set FUNCTION key 1 as follows:

STAT CON:=CRT:↵

(where ↵ means carriage return). This will make the TRS-80 100 the control terminal for the Osborne. There is no display or keyboard control on the Osborne; these are from the Model 100 only.

In order to transfer files from the Model 100 to the Osborne type:

PIP A:<filename(01)>=CON:↵

and immediately press **FUNCTION KEY 3 (UPLOAD)** on the Model 100. This will permit sending a file from the Model 100 to the Osborne disk in Drive A.

It is ESSENTIAL that a **^Z** (control Z) be sent at the end of each file transfer.

In order to transfer files from the Osborne to the Model 100 type:

PIP CON:=A:<filename(01)>↵

and immediately press **FUNCTION KEY 2 (DOWN)** on the Model 100. This will permit receiving a file from the A disk drive on the Osborne to the Model 100. It may be simultaneously printed from the parallel port of the Model 100 by pressing **FUNCTION KEY 5 (ECHO)**.

As before it it ESSENTIAL that a **^Z** be sent at the end of each file transfer.

For all the transfer operations described, the Model 100 keyboard is the only control.

In order to return to the Osborne keyboard control, either of the following two methods may be used. On the Osborne pressing **RESET** and ↵ will permit a fresh start.

The other method can be accomplished from the Model 100 keyboard. After each transfer the `A>` prompt appears and by typing: **STAT CON:=TTY:↵** will get you back to the Osborne keyboard.

I find the above method of file transfers easy to use and no BASIC programs need be used. The STAT command capability of CP/M is very handy and useful. I found it poorly defined in the Osborne manual, particularly for a neophyte. I made a cheat sheet for the three steps I use most and have that handy when making my file transfers.

I hope this will be of some use to those using a lap computer like the Radio Shack Model 100 when interfacing with the Ozzie.

• • • • • • •

OSBORNE 1

Improving Osborne Disk Reliability

by William S. Tighe

My aging, three year old tan case Osborne has always had problems with Drive B so I tried the proposed solution in your article *47 pf Solves a Common Osborne 1 Drive Problem* in the March 1985 ***FOGHORN***.

While I had my Ozzie open I was able to discover four other ways to improve disk drive reliability. My Drive B now works perfectly. Since other Osborne users seem to have disk drive problems I will share what I have learned.

The first problem noticed was that Drive B had only half the read amplitude of Drive A (at TP7 and TP8). A realignment yielded only a 10 percent improvement.

This meant that Drive B either had a weak head or a weak preamplifier. Swapping the boards between the two drives in an effort to isolate the problem gave equal amplitudes! Drive A was now weaker and Drive B was stronger than before.

Apparently Drive B had both a weak head and a weak preamplifier. Moving the weak preamp to Drive A and the strong preamp to Drive B made them both equal. Both drives now have 50 percent more amplitude than B had originally so they should both work reliably.

Another problem was that the cases of both drives had 400 millivolt noise bursts occurring at a 15 kHz rate. These noise bursts also appeared at the output of the read amplifiers (TP7 and TP8) with an amplitude exceeding the read signal. They were traced to the flyback transformer in the monitor. Ideally these pulses should be intercepted by the frame of the monitor and returned to the flyback transformer through two ground studs provided next to the transformer.

The Osborne provided another path however, through the long thin frame ground wires in the back of the Osborne, across the main PC board, and back through the monitor cable. This is known in technical parlance as a "ground loop".

To open this loop the frame of the monitor must be isolated from the frame ground of the Osborne leaving the monitor grounded only through its cable.

To accomplish this the monitor was removed and two layers of electrical tape were applied to all frame surfaces that could touch the Osborne frame. There are six screws protruding from the side of the monitor that may need to be filed down to give clearance for the tape. Four of the screws are hardened self-tapping screws that cannot be filed but they can be replaced with softer machine screws.

Next, examine the monitor mounting screw holes on the Osborne frame. On the tan case models the monitor mounting screws are seated in plastic so no further modifications are necessary.

If the mounting screws contact metal on the Osborne frame you will need to enlarge the holes and use plastic shoulder washers to isolate the screws. Once you are sure all possible contact points are insulated remount the monitor.

With the monitor cable disconnected check for isolation using an ohmmeter or megger.

With the Osborne reassembled the monitor will now be grounded only through its cable, eliminating the ground loop.

The noise from the flyback transformer can be further reduced by covering the top of the monitor with a copper screen. Be sure the screen is grounded only to the monitor frame to avoid the ground loop problem.

Another problem is the voltage drop in the ground wire between the power supply and the main PC board. The original wiring allows a 0.2 to 0.3 Volt drop which results in a low +5 logic voltage.

Soldering a 20 gauge wire between the logic power grounds on these two boards reduces the drop to 0.02 Volts and raises the logic supply from 4.6 Volts to a more respectable 4.8 Volts. Careful! The power supply has two grounds, a frame ground and a logic power ground. Be sure to connect to the logic power ground. To distinguish the two, the logic power ground connects to the four pin connectors and the frame ground connects to a single spade type quick connect.

With these modifications the disk drives will have 1/20th the noise as before and will even operate without their covers although I don't recommend leaving them off.

Both the drives on my Osborne now seem solid and reliable. BDOS errors seem to stem not from one central problem but from several small problems.

• • • • • • •

OSBORNE EXECUTIVE

Multiple Commands Using "!"

by Peter C. Cole

As you probably know, a CP/M command is what you enter after the A› prompt. Normally you enter only one command such as:

```
A› DIR A:↩  (↩ is the carriage return key)
```

Not mentioned in the Osborne Executive manuals is a way you can automatically run a second program after finishing the first. This is called "executing multiple commands". It is described in the ***User's Guide of CP/M Plus*** by Digital Research. All you do is use exclamation marks to separate your commands. For example:

```
A› DIR A:!DIR B:↩
```

So what advantage is this? Not much if you're typing in your commands, but it may become useful if you use it on one of your special function keys or if it is included as a "chain" command in a program such as EXECST.COM. For those of you who use SUBMIT.COM, using !'s with EXECST.COM might free you from having to include SUBMIT.COM on your disk.

A word of caution. If a file is not found then CP/M Plus will skip that file, give you a ?, and continue on with the next file.

I have written a program called MAKEST that will create an EXECST.COM file that can have a command line of up to 126 characters including !'s. I have released it for free dist
to any and all who want it. It is on FOG/CPM.005.

• • • • • • •

FOG MEMBER ANNOUNCEMENTS

Osborne 1 For Sale

Double density with add. bundled software plus dBASE II, games, utility disks, and back issues of the ***FOGHORN*** and the ***Portable Companion***. $500 or best offer.

Eric Hobson
3045 Heights Dr.
Reno, NV 89503
(702) 747-0728

• • • • • • •

Personal Pearl For Sale

Original documentation and disks, never used. Costs $195, asking $95. Call Les at (309) 692-7499, evenings or weekends.

• • • • • • •

For Sale Osborne 1 Plus

Original grey case Osborne 1 — upgraded Nuevo double density, 80 column — printer cable and monitor cable extender — for sale with WordStar/MailMerge, dBASE II, SuperCalc, MicroSpell, ASCOM (total communications program), matrix printer enhancement software, Media Master, and many other disks. Also all Osborne support literature and years of ***FOGHORN***. Used only as a backup machine to other office machines. Contact Brian J. Winkel, 2706 Wilson Drive, Terre Haute, IN 47803, (812) 232-7942. We are looking for offer over $400.

• • • • • • •

CO-Power 88 for Osborne 1

256K RAM disk and 8088 co-processor with complete MS-DOS 2.0 operating system and documentation. A large RAM-disk and an easy upgrade to DOS. Does not work with Executive. Must sell. $250 or b/o. Eves. (415) 845-2159.

• • • • • • •

Executive For Sale

Exec with all original software plus updated version of Personal Pearl (ver. 1.10), updated version of dBASE II (ver. 2.43 and Tutor), Docket from Microcraft, SmartKey-SmartPrint, and more. $800, call Marty (818) 793-6774, days; (818) 346-1426 evenings and weekends.

• • • • • • •

Osborne 1 For Sale

Grey case, SD, 52 column, with all standard software plus dBASE II, all manuals and Comm-Pac modem with AmCall software. Osborne internal fan installed. For more info, call Tom Hadfield at (313) 956-5221 daytime, or (313) 642-8357 night.

• • • • • • •

CORRECTION

Re: The Star Vs. the New

The version of NewWord tested by Yigal Zan in his article *The Star Vs. the New* which appeared in the January 1986 ***FOGHORN*** is version 2.16. This is the later and — as Mr. Zan says to us in a follow-up letter — "presumably improved" version.

• • • • • • •

PRODUCT ANNOUNCEMENTS

A Computer Handbook to Help Save You Time, Money and Unnecessary Frustration

A new book, ***The Complete Computer Maintenance Handbook***, by David Bellin published by Harper and Row is now available.

H&R's computer science editor describes the handbook as providing a wider range of topics than any other book in the field. There are three chapters on software maintenance (including discussion of ethical and legal issues) — coverage which is a first in a book of this kind; four chapters on hardware maintenance; two on documentation; and two on system enhancement (providing exclusive coverage on how to use outside consultants and services and how to know when it is time to get that outside help.

Throughout, sample forms and contracts demonstrate how they are employed in actual practice, and perforated, detachable copies of every form and contract discussed can be found in an appendix.

The Complete Computer Maintenance Handbook has been selected by the McGraw-Hill and Macmillan book clubs.

• • • • • • •

Data Based Solutions Offers FOG Members 50 Percent Discount on dBASE II Book

San Diego-based software publisher Data Based Solutions, is offering a special user group discount to FOG members on ***The dBASE Book of Business Applications.*** When a purchaser identifies him/herself as a FOG member the price will be $9 not $19.95 as advertised in the ***Data Based Advisor*** magazine and ***Business Software.*** This book is specifically for dBASE II users and has much to offer FOG members. Of special note is a chapter called **Expenses On the Go: A Portable Computer Application.**

Written by Michael J. Clifford, ***The dBASE Book of Business Applications*** is a combination tutorial and programming guide for business users of Ashton-Tate's top-selling dBASE II data base management system.

The book is intended for noncomputer professionals, managers, dBASE II trainers, students of programming and anybody who is interested in automating office procedures and maximizing productivity. The book clears up the mystery of this popular business software and demonstrates how its flexibility makes it easily adaptable to daily business routines.

The dBASE Book of Business Applications is divided into five sections: **dBASICS of Business, Communicating With Clients, Money and Material Management, Expenses On the Go: A Portable Computer Application** and **Useful dBASE II Utilities.** Each section includes the source code for several working application programs including a mailing list manager, a portable computer application, an inventory system, an invoicing and sales reporting system. The utilities sections offers a date and duration toolkit and a graphics toolkit.

Originally published by Reston Publishing (ISBN 0-8359-1241-8), ***The dBASE Book of Business Applications*** is now available only from Data Based Solutions Inc., a San Diego-based publisher of dBASE add-on software. The 210 pages of dBASE programs contained in the book also are available on disk for $34.95. Disk formats supported include most popular CP/M formats plus IBM-PC format. To order the book and the program disk, write Data Based Solutions, Inc., 1975 Fifth Avenue, Suite 105, San Diego, CA 92101, or call toll free (800) 336-6060, in California call toll free (800) 833-2700.

• • • • • • •

WordStar in Three Days and What to Do When Things Go Wrong

Maple Hill Press, 174 Maple Hill Road, Huntington, NY 11743, (516) 549-3748, is offering a special 30 percent discount to FOG members on a new book on WordStar — ***WordStar in Three Days and What to Do When Things Go Wrong*** by Miranda Morse.

Normally $14.95, Maple Hill will ship the book to members for $10.96 and it can be returned anytime within 30 days for a full refund.

Maple Hill says ***WordStar in Three Days*** is the only source anywhere for WordStar problem-solving and it has been recommended by MicroPro. The book covers everything from beginners' snafus to pitfalls confronting the experienced user; e.g., page formatting problems, and why **^QA** won't insert a difficult phrase automatically if you follow the instructions in the manual.

It contains step-by-step instructions in plain English, tips and shortcuts to make WordStar more enjoyable, details about hidden pitfalls and a comprehensive index that includes more than 40 entries for troubleshooting.

• • • • • • •

Project Victoria — Pacific Bell's Newest Communications System

Pacific Bell's Project Victoria system, being tested at Danville 35 miles east of San Francisco, CA, converts a telephone line into seven simultaneous communications channels; five data and two voice. It will work with virtually any telecommunications equipment, information service, transmission carrier or computer terminal.

Essentially the Victoria system turns an existing voice (analog) telephone line into a multiplexed digital transmission pathway over which a subscriber can use various channels and specify transmission speed (from 9600 bits per second [bps] to 300bps for one data channel; and four other data channels will each accommodate speeds from 1200 to 50bps) and service provider on each.

A multiplexer unit combines signals from the voice and digital service inputs into a transceiver. These signals are then transmitted over local telecommunications wiring in rapid-fire sequence to another transceiver/multiplexer unit at the local central office. From there, they are routed to gateways where they are reconverted to standard transmission signals for travel over the core public telecommunications network, a packet network or a direct line to their destinations.

The system can easily be integrated into existing telephone company maintenance and administration procedures and Pacific Bell hopes the system will be available as early as next year.

The two voice channels can accommodate existing touchtone or rotary dial telephones, whether single-line or Centrex equipment.

For the project's data channels, a digital service input will permit subscribers to communicate with electronic service providers. The asynchronous medium-speed channel, which is particularly suited to work-at-home or inter-office communications, has speed selection options of 9600, 4800, 2400, 1200 and 300bps. Today, most computer users transmit data at speeds of 300 or 1200 bps, often using a second line for data transport in addition to their basic telephone line.

The system can be connected to any residence or business by simply plugging an RS-232C connector into the RS-232C port on any computer terminal.

Each low-speed Victoria system channel can operate at 1200, 300, 150, 75 or 50 bps and are particularly suited for such applications as home or office energy monitoring, emergency alarm transport and pay-per-view cable TV.

• • • • • • •

The Electronic Mailbox

A new book, ***The Electronic Mailbox*** ($16.95 paperback, 198 pages from Hayden Books, 10 Mulholland Dr., Hasbrouck Heights, NJ 07604) by Ira Mayer covers the new technology and rapidly-growing industry of electronic mail. The book explains what electronic mail is, how it can save users money and how to determine which services meet a company's or individual's needs.

It details what a user can expect as he/she starts an electronic mail system, suggest 10 steps for ensuring the security and privacy of all messages and compares the features, prices and services offered by ADP Automail, CompuServe, Delphi, Federal Express ZapMail, GE Quick-Comm, GTE Telemail, ITT Dialcom, RCA Mail, RCA Telextra, The Source and Western Union's EasyLink.

The Electronic Mailbox gives true examples of how electronic mail has been integrated into business practices and demonstrates the direct and indirect savings that are possible by switching from paper to electronic mail. It also looks at the future, with an examination of electronic mail's latest off-shoot, voice mail.

* * * * * * *

PMC MicroMate Terminal Converter Line Extended for New Models

Personal Micro Computers, Inc., 275 Santa Ana Ct., Sunnyvale, CA 94086, (408) 737-8444, has added two terminal converters to its MicroMate PMC line.

The PMC-102 and 121 come with 128K memory, two RS-232C ports, disk expansion ports for both floppy and hard disks, a parallel printer port and high speed parallel I/O bus for expansion purposes. The 102 offers two 5-1/4" disk drives, each with 400K bytes capacity and the 121 offers a single floppy disk drive and a single 20MB hard drive.

The MicroMate is installed between the terminal and the communications link to the mainframe. The 102 and 121 are 12-3/4" x 12-3/4" x 3" and can easily be placed underneath any small footprint terminal with detached keyboard. They add local processing and storage capacity to any ASCII terminal and the user can do word processing, spreadsheets and data base operations without ever going to the mainframe system.

The MicroMate comes with CP/M+ (version 3.0), CBASIC programming language and operating utilities.

* * * * * * *

MACREX Indexing Program Now Available in the U.S.

BAYSIDE Indexing Service (415) 524-4195, is now the exclusive U.S. distributor of the popular British indexing program, MACREX, which runs on CP/M, and PC/MS-DOS microcomputers (the DOS version allows up to nine levels of subentries).

MACREX can be used as a stand-alone indexing program or in conjunction with a word processor. It has many editing features and many commands resemble the equivalent WordStar command. WS and Perfect Writer print commands are available from the MACREX PRINT MENU.

Entries can be sorted word-by-word, letter-by-letter, text can be "hidden" from the sort, and entries can be moved out of alphabetic order for indexes that list subentries in chronological order. There is a repeat function that allows up to 100 symbols to represent oft-repeated terms, headings and subentries can be inverted and new headings made with the touch of a key and cross references are easily inserted where needed.

The CP/M version costs $280 and the DOS is $325.

* * * * * * *

FOR SALE

START COPY

Business opportunity . . . New start-up computer toy company presently reviewing credentials of programmers with exp in interface coding or systems devel work for the Z80. Call Fred Schmidt, Schmidt & Assoc. (415) 346-7107 or send resume to: 3637 Fillmore St. San Francisco, CA 94123. Part time devel on a fee basis possible.

* * * * * * *

Blue Case 0-1

$695 — Former OCC employee sells supersystem. 80 col., DD; 12" mon., modem, SWP MS-DOS coproc. w/256K RAM disk, fan. Enormous software library includes e.g. WS 3.3, SC2, dBASE, Pearl & Pearl File Load, Grammatik, Documate indexer, Footnote, SpellGuard, MathStar, Disk Doctor, freeware utilities, SuperSort, Tutor, SmartKey, KAMAS. Plus complete ***Portable Companion*** and ***FOGHORN***. Bargain! Mike McCarthy, (415) 276-2369.

* * * * * * *

BUY OSDEX NOW — SAVE $4.00

Osdex, Comprehensive Index. Key to the blue *Osborne 1 User's Reference Guide.* Over 2,000 entries. Cross-referenced. 64 pp.

ONLY $4.95 plus $1.00 postage and handling per book. (regular $8.95)

Periscope Press
P.O. Box 6926
Santa Barbara, CA 93160

Want to Advertise?

Advertising rates, effective March 1, 1985 are:

full page	7.5" x 9.5"	$550.00
half page	3.25" x 9.5"	$300.00
	7.5" x 4"	$325.00
quarter page	3.25" x 4"	$150.00
eighth page	3.25" x 2"	$ 75.00
For Sale*	3.25" x 1"	$ 25.00

* Limit one **For Sale** per month

Space reservation is made by payment for space and must be done at least two months prior to desired cover month. Art work must be received at the **FOG** office at least one month prior to desired cover month. For further information, call (415) 755-2000.

* * * * * * *

75 *Improving Osborne Disk Reliability* .... *by William S. Tighe*
If your Osborne has disk drive problems, you may be able to use one of William's proffered solutions.

75 *Multiple Commands Using "!"* ...... *by Peter C. Cole*
Under CP/M+, you can automatically run a second program on the Executive after finishing the first.

REGULAR FEATURES

2 *FOG Membership Information Updates*
7 *LETTERS*
39 *CALENDAR*
42 *FOG FONES*
79 *ADVERTISER INDEX*
78 *FOR SALE*
76 *CORRECTION*
76 *PRODUCT ANNOUNCEMENTS*
76 *FOG MEMBER ANNOUNCEMENTS*
79 *FOG MEMBER MERCHANDISE*

Advertiser Index

Blackship Computer Supply *51*
CompuMagic, Inc. *23*
Dr. Dobb's Journal *6*
Flashlite Software *27*
Four Corners Press *37*
Intersecting Concepts *48*
J. Gaudio Company *25*
Kamasoft, Inc. *33*
Mentzer Computer Services *70*
Micro Interfaces Corporation *26*
Microtech Computer Services *55*
Mission Peak Systems *53*
Nuevo Electronics Corp. *38*
Poor Person Software *18*
Software Toolworks *44*
Sudden! Products Group *62, 63*
WestWind Computer *19*
Witt Services *12*
Wizard of OsZ *66*

* * *

FOG MEMBER MERCHANDISE

Decision on whether or not to discontinue the FOG T-shirts will depend on members' interest. These T-shirts are soft blue in color with the FOG logo in black and are Hanes 100% cotton. They are cut [illegible] allow for shrinkage [illegible] avail-

age) carries all the articles from October, 1982 through September, 1983.

The FOG Starter Disk is available in two formats. The double density version is on a single disk ($4.00 including shipping); the single den[illegible]

Prices of FOG merchandise

Individual ***FOGHORN*** Issues:

Volume I (remaini[illegible] $1.50 ea.

Volume [illegible] [illegible]0 ea.

FOGHORN
P. O. Box 3474
Daly City, Ca 94015-0474
United States of America

Non Profit Org.
U. S. Postage
PAID
Daly City, CA
Permit No. 675

TIME VALUE MATERIAL

Address Correction Requested
Return Postage Guaranteed

Member of 128--

Member No: 00362 Expire: 04/86
Jerry [redacted]

FOG (a California corporation which has obtained its non-profit, tax exempt status from both the state and federal governments) has been formed as a users' group for persons using or interested in portable computers and/or the CP/M disk operating system with related software. Most of the 15,000 members (from around the world) attend meetings at over 300 locations.

Dues in FOG are $24.00 per year. This entitles each member to a copy of either the ***FOGHORN*** or the new 16-/32- bit publicat[illegible] each month plus access to the disk library [illegible]-RCP/M network systems. If [illegible] $18.00.

Local group meetings are open to the public without charge although access to the disk library is restricted to the membership. The **FOG** Disk Library contains only software copyrighted for the public domain. Piracy (the copying of proprietary software) is strongly condemned.

In the United States, the ***FOGHORN*** is normally mailed by non-profit bulk mail. For those who live out of the U.S., or those who prefer first class delivery of their ***FOGHORN***, additional postage must be added to the annual dues. See the chart for details. A membership brochure and card will be sent as soon as your membership is processed.

First Class Postage Rates

The following is a list of additional charges **per publication.** If you decided to receive both publications, please double the amount shown.

Canada & Mexico (First Class)	ADD...$ 9.00
Members with U.S. addresses who prefer First Class delivery to Non-profit bulk mail	ADD...$ 9.00
Central & South America, Caribbean, and Europe (Airmail First Class delivery)	ADD...$12.00
Asia, Africa, & Far East (Airmail First Class)	ADD...$15.00
Out of North America preferring surface mail — delivery not guaranteed	ADD...$ 6.00